

Parks Canada  
Parcs Canada

# TERRA NOVA NATIONAL PARK UTILITY SYSTEMS RECAPITALIZATION PHASE 3

## DRAWING LIST

### NEWMAN SOUND CAMPGROUND SANITARY SERVICE UPGRADE

- CS01 NEWMAN SOUND SANITARY SEWER OVERALL SITE PLAN
- CS02 NEWMAN SOUND SANITARY SEWER GENERAL NOTES & LEGEND
- CS03 LOOP A-B & KIOSK SANITARY SEWER PLAN & PROFILE STA. 30+020 TO 30+250
- CS04 LOOP A-B & KIOSK SANITARY SEWER PLAN & PROFILE STA. 30+250 TO 30+525
- CS05 LOOP A-B & KIOSK SANITARY SEWER PLAN & PROFILE STA. 30+995 TO 31+220
- CS06 DAY-USE FORCE MAIN PLAN & PROFILE STA. 16+470 TO 16+700
- CS07 DAY-USE FORCE MAIN PLAN & PROFILE STA. 16+700 TO 16+950
- CS08 DAY-USE FORCE MAIN & LIFT STATION PLANS & PROFILE STA. 16+950 TO 17+190
- CS09 BUILDINGS 24 & 25 SEPTIC FIELD PLAN & PROFILE
- CS10 BUILDINGS 24 & 25 SEPTIC FIELD CROSS SECTIONS
- CS11 BUILDING 26 SEPTIC FIELD PLAN, PROFILE & CROSS SECTIONS
- CS12 BUILDINGS 27 & 28 SEPTIC FIELD PLAN, PROFILE & CROSS SECTIONS
- CS13 BUILDINGS 29 & 30 SEPTIC FIELD PLAN, PROFILE & CROSS SECTIONS
- CS14 LOOP A-B SEPTIC FIELD PLAN & PROFILES
- CS15 LOOP A-B SEPTIC FIELD CROSS SECTIONS
- CS16 OTENTIK & BUILDING 38 SEPTIC FIELD PLAN & PROFILE
- CS17 OTENTIK & BUILDING 38 SEPTIC FIELD CROSS SECTIONS

### NEWMAN SOUND CAMPGROUND WATER SERVICE UPGRADE

- CW01 NEWMAN SOUND WATER MAIN OVERALL SITE PLAN
- CW02 NEWMAN SOUND WATER MAIN GENERAL NOTES & LEGEND
- CW03 CAMPGROUND MAIN ROAD WATER MAIN PLAN & PROFILE STA. 5+610 TO 5+700
- CW04 LOOP D WATER MAIN PLAN & PROFILE STA. 8+070 TO 8+350
- CW05 CAMPGROUND MAIN ROAD 2 WATER MAIN PLAN & PROFILE STA. 9+310 TO 9+500
- CW06 LOOP C WATER MAIN PLAN & PROFILE STA. 12+000 TO 12+330
- CW07 CAMPGROUND MAIN ROAD 4 WATER MAIN PLAN & PROFILE STA. 16+000 TO 16+330
- CW08 CAMPGROUND MAIN ROAD 4 WATER MAIN PLAN & PROFILE STA. 16+330 TO 16+660
- CW09 CAMPGROUND TRAIL WATER MAIN PLAN & PROFILE STA. 16+660 TO 16+860
- CW10 CAMPGROUND TRAIL WATER MAIN PLAN & PROFILE STA. 16+860 TO 17+190
- CW11 LOOP A 1 ROAD WATER MAIN PLAN & PROFILE STA. 18+000 TO 18+250
- CW12 LOOP A 2 ROAD WATER MAIN PLAN & PROFILE STA. 19+000 TO 19+300
- CW13 BUILDINGS 24 & 25 WATER MAIN PLAN & PROFILE STA. 20+000 TO 20+060
- CW14 CAMPGROUND ROAD 4 TO LOOP A WATER MAIN PLAN & PROFILE STA. 23+000 TO 23+240
- CW15 LOOP B WATER MAIN PLAN & PROFILE STA. 24+000 TO 24+200
- CW16 LOOP B WATER MAIN PLAN & PROFILE STA. 24+200 TO 24+390
- CW17 WATER RESERVOIR SITE PLAN
- CW18 WATER RESERVOIR TYPICAL INSTALLATION DETAILS
- CW19 WATER RESERVOIR PIPING SYSTEM DETAILS & SITE LOCATION PLAN
- CW20 NEWMAN SOUND BOTTLE FILLING STATIONS LOCATION PLAN
- CW21 NEWMAN SOUND BOTTLE FILLING STATIONS SITE PLANS
- CW22 NEWMAN SOUND VALVE TABLE

### MALADY HEAD CAMPGROUND SANITARY SERVICE UPGRADE

- MHC01 MALADY HEAD WATER AND SANITARY OVERALL SITE PLAN, GENERAL NOTES & LEGEND
- MHC02 WATER AND SANITARY SEWER PLAN & PROFILE STA. 0+010 TO 0+270
- MHC03 SANITARY DISPOSAL FIELD PLAN, PROFILE & SECTIONS STA. 2+000 TO 2+080
- MHC04 SANITARY DISPOSAL FIELD PLAN, PROFILE & SECTIONS STA. 6+000 TO 6+060
- MHC05 SANITARY DISPOSAL FIELD PLAN & PROFILE STA. -0+040 TO 0+120
- MHC06 SANITARY DISPOSAL FIELD CROSS SECTIONS
- MHC07 MALADY HEAD BOTTLE FILLING STATIONS LOCATION PLAN
- MHC08 MALADY HEAD BOTTLE FILLING STATIONS SITE PLANS
- MHE01 ELECTRICAL FOR MALADY HEAD BLOWER BUILDING

### VISITOR CENTRE

- VC-CW01 VISITOR CENTRE OVERALL SITE PLAN, GENERAL NOTES & LEGEND
- VC-CW02 WELL PUMPHOUSE TO TNNP VISITOR CENTRE WATER MAIN PLAN & PROFILE STA. 0+000 TO 0+210
- VC-CW03 WELL PUMPHOUSE TO TNNP VISITOR CENTRE WATER MAIN PLAN & PROFILE STA. 0+210 TO 0+460
- VC-A01 WELL PUMPHOUSE TNNP VISITOR CENTRE EXISTING ARCHITECTURAL FLOOR PLAN & SECTION
- VC-M01 WELL PUMPHOUSE TNNP VISITOR CENTRE EXISTING MECHANICAL REMOVALS
- VC-M02 WELL PUMPHOUSE TNNP VISITOR CENTRE NEW MECHANICAL LAYOUTS & WELL PUMP INSTALLATION
- VC-E01 WELL PUMPHOUSE TNNP VISITOR CENTRE ELECTRICAL DEMOLITION AND CONSTRUCTION PLAN

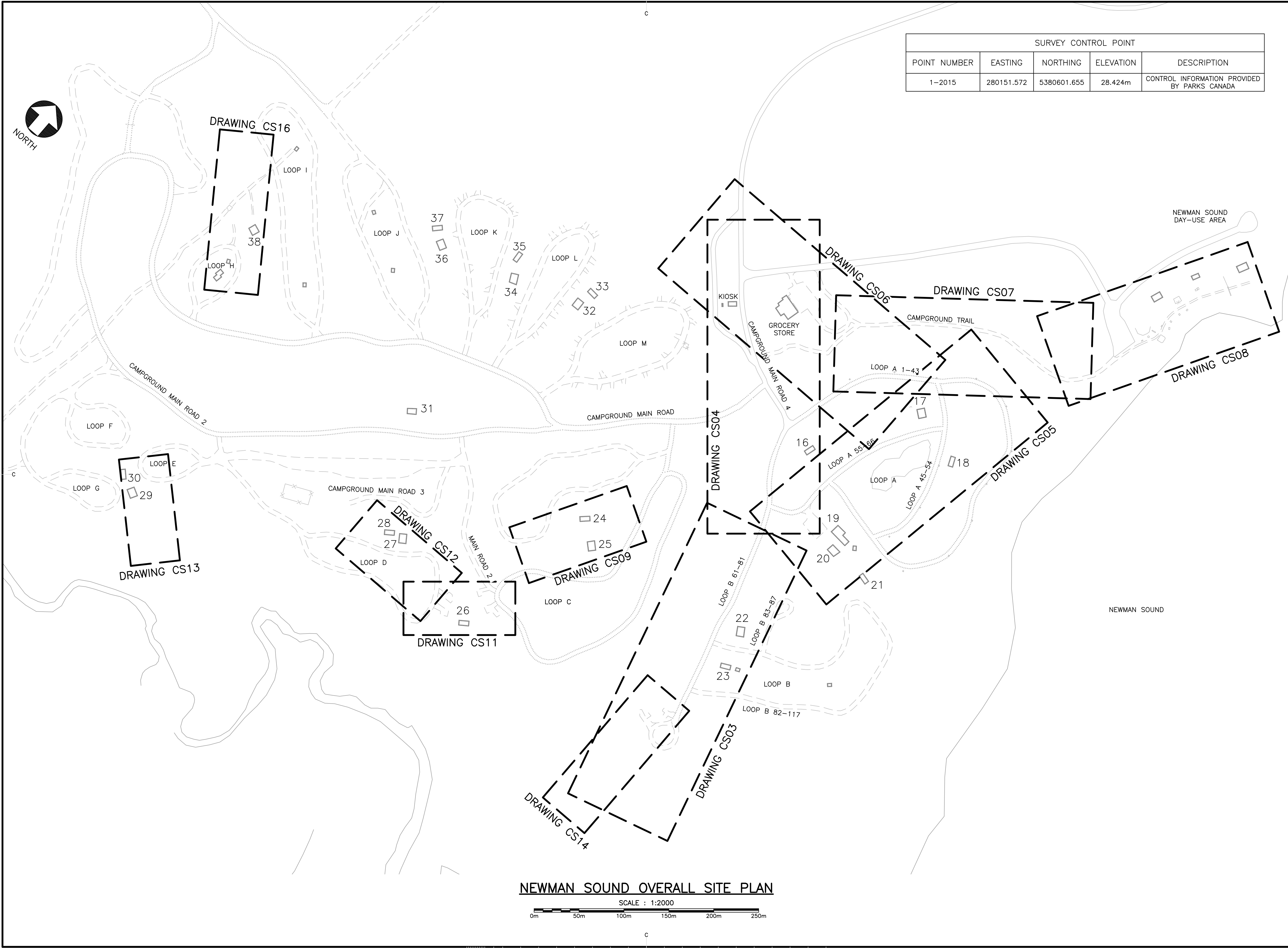
### TYPICAL DETAILS

- D01 NEWMAN SOUND ROAD RECONSTRUCTION IDENTIFICATION PLANS 1 & 2 AND DETAIL
- D02 NEWMAN SOUND ROAD RECONSTRUCTION IDENTIFICATION PLAN 3
- D03 TYPICAL DETAILS
- D04 TYPICAL DETAILS
- DS01 SANITARY SEWER TYPICAL DETAILS
- DS02 SANITARY SEWER TYPICAL DETAILS
- DS03 BLOWER BUILDING DETAILS
- DS04 BLOWER BUILDING DETAILS
- DW01 WATER MAIN TYPICAL DETAILS
- DW02 WATER MAIN TYPICAL DETAILS
- DW03 WATER MAIN TYPICAL DETAILS
- M01 NEWMAN SOUND DAY-USE LIFT STATION DETAILS
- E01 ELECTRICAL FOR NEWMAN SOUND WATER RESERVOIR
- E02 ELECTRICAL FOR NEWMAN SOUND BLOWER BUILDING
- E03 ELECTRICAL FOR NEWMAN SOUND DAY-USE LIFT STATION



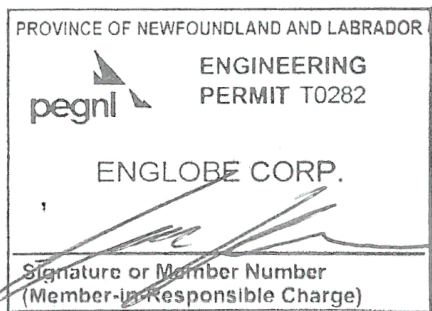
PCA PROJECT NO. 1716





SURVEY CONTROL POINT				
POINT NUMBER	EASTING	NORTHING	ELEVATION	DESCRIPTION
1-2015	280151.572	5380601.655	28.424m	CONTROL INFORMATION PROVIDED BY PARKS CANADA

NOTES:  
1. SEE GENERAL NOTES AND LEGEND ON DRAWING CS02.



0.0	ISSUED FOR TENDER	05/31/2021
revisions		date

project TERRA NOVA NATIONAL PARK  
UTILITY SYSTEMS  
RECAPITALIZATION  
PHASE 3

drawing Newman Sound  
SANITARY SEWER  
OVERALL SITE PLAN

designed	A. MELANSON	conçu
date	2021-02-26	
drawn	S. ALLAIN	dessiné
date	2021-02-26	
approved	A. MELANSON	approuvé
date	2021-02-26	
Tender		Soumission

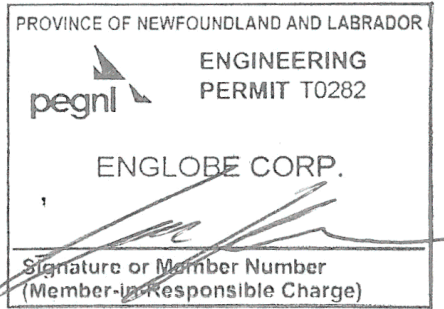
PCA Project Manager	Administrateur de projets APC
project number	no. du projet
1716	
drawing no.	no. du dessin
CS01	



GENERAL NOTES:

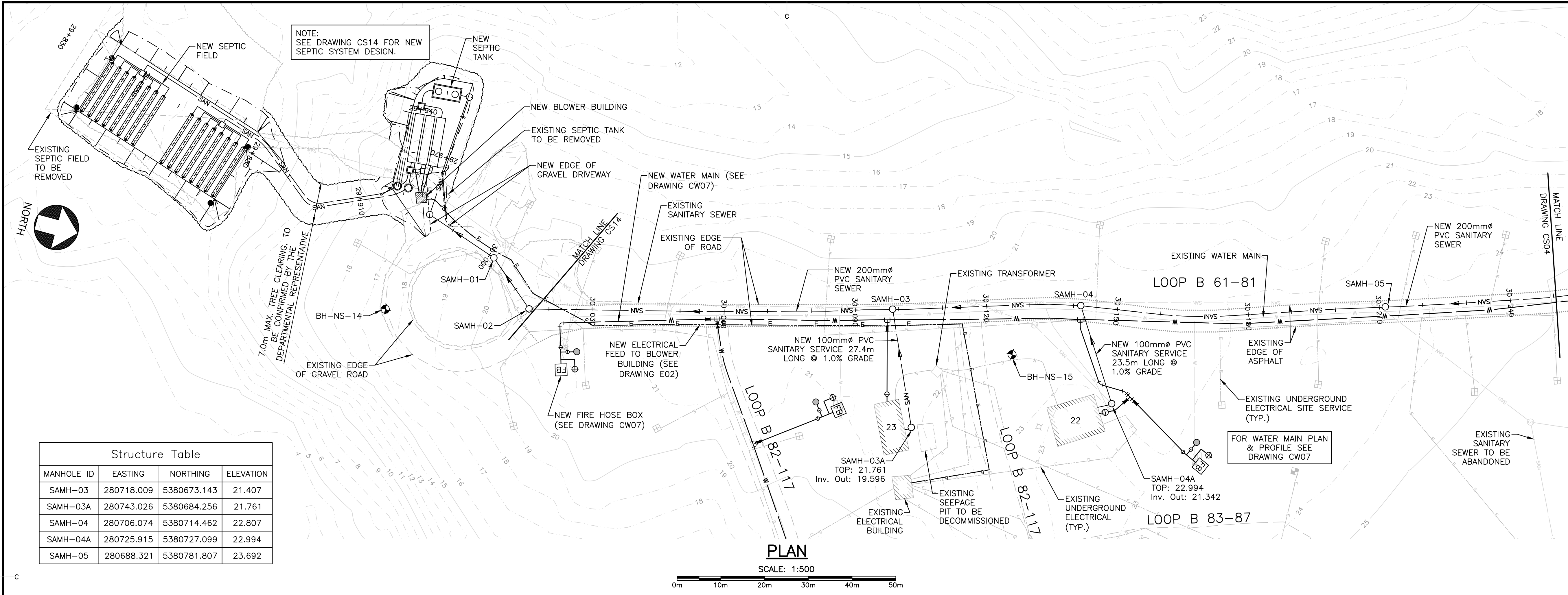
1. EXISTING WATER MAIN, SANITARY SEWER, ELECTRICAL AND CAMPGROUND LAYOUT FROM INFORMATION ON ORIGINAL NEWMAN SOUND CAMPGROUNDS WATER AND SEWER DRAWINGS DATED 1971 IN COMBINATION WITH INFRASTRUCTURE FOUND DURING ENGLOBE SURVEY. ACTUAL LOCATIONS SHALL BE CONFIRMED IN THE FIELD BY THE CONTRACTOR.
2. DRAWINGS BASED ON COORDINATE SYSTEM UTM83-22 (UTM WITH NAD83 DATUM, ZONE 22, METER; CENTRAL MERIDIAN 51D W).
3. CONTRACTOR SHALL CONFIRM EXACT LOCATION, MATERIAL AND SIZE OF EXISTING PIPING, UNDERGROUND UTILITIES AND ALL CONNECTION POINTS IN THE FIELD, PRIOR TO ANY SEWER MAIN INSTALLATION.
4. THE CONTRACTOR IS RESPONSIBLE FOR THE TEMPORARY SUPPORT OF UTILITY POLES AND UNDERGROUND UTILITY DUCTS DURING THE INSTALLATION OF THE NEW SEWER MAIN AS REQUIRED, INCIDENTAL TO THE WORK.
5. CONTRACTOR SHALL LOCATE ALL EXISTING UTILITIES IN COORDINATION WITH PCA PRIOR TO BEGINNING WORK. LOCATES MUST BE PERFORMED BY CAREFUL EXCAVATION AND HAND DIGGING IN AREAS WHERE NEW INFRASTRUCTURE IS EXPECTED TO CROSS THE EXISTING UTILITIES. AS A MINIMUM, THE CONTRACTOR SHALL EXPOSE THE EXISTING UTILITIES BEFORE WORKING WITHIN 20m OF THEM.
6. ANY UTILITIES THAT MAY BECOME DAMAGED DURING CONSTRUCTION MUST BE REPORTED TO THE DEPARTMENTAL REPRESENTATIVE IMMEDIATELY. COST RESULTING FROM SAID DAMAGE TO EXISTING POWER, COMMUNICATION OR UTILITY LINES SHOWN ON DRAWINGS OR FROM LOCATES DURING CONSTRUCTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
7. THE CONTRACTOR IS RESPONSIBLE FOR THE TEMPORARY SUPPORT OF UTILITY POLES AND UNDERGROUND UTILITY DUCTS DURING THE INSTALLATION OF THE NEW WATER MAIN AS REQUIRED, INCIDENTAL TO THE WORK.
6. SAFETY SIGNS TO BE INSTALLED PRIOR TO START OF CONSTRUCTION AND IN ACCORDANCE WITH WORK AREA TRAFFIC CONTROL MANUAL.
7. THE CONTRACTOR MUST HAVE A COPY OF ALL APPROVED ENVIRONMENTAL PERMITS (IF REQUIRED) ON-SITE AT ALL TIMES AS WELL AS PARKS CANADA BASIC IMPACT ANALYSIS (B.I.A.).
8. EROSION CONTROL STRUCTURES AND SILT FENCING TO BE INSTALLED PRIOR TO START OF THE WORK, INCIDENTAL TO THE WORK. CONTRACTOR TO PROVIDE EROSION CONTROL PLANS TO DEPARTMENTAL REPRESENTATIVE FOR APPROVAL PRIOR TO START OF WORK.
10. TREE CLEARING TO BE KEPT TO A MINIMUM AND TO BE APPROVED BY THE DEPARTMENTAL REPRESENTATIVE. ADJUSTMENTS TO THE PIPE ALIGNMENTS TO BE DONE IN THE FIELD TO MINIMIZE TREE CLEARING WITH THE DEPARTMENTAL REPRESENTATIVE'S APPROVAL.
11. USE OF HAY IS STRICTLY PROHIBITED.
12. AT NO POINT SHALL THE CONTRACTOR IMPORT ANY TOP SOIL UNLESS REQUESTED AND APPROVED BY THE DEPARTMENTAL REPRESENTATIVE.
13. HYDROSEED WILL BE PERMITTED ONLY IN EXISTING OPEN GRASS AREAS UNLESS REQUESTED AND APPROVED BY THE DEPARTMENTAL REPRESENTATIVE. HYDROSEED WILL NOT BE PERMITTED ON DISPOSAL FIELDS. ON-SITE GRUBBINGS TO BE USED IN ALL OTHER AREAS OUTSIDE OF ROADWAYS OR PATHS.
14. THE CONTRACTOR SHALL STOCKPILE TOP 150mm OF SOIL FROM GRUBBINGS AND RE-USE AS TOP DRESSING FOR RIGHT-OF-WAY, LAY DOWN AREAS AND ANY DISTURBED AREAS FOLLOWING THE INSTALLATION OF THE NEW SEWER MAIN.
15. EXISTING ASPHALT TO BE CUT SQUARE USING A SAW BEFORE THE START OF THE WORK, REFER TO SPECIFICATIONS.
16. ALL EXISTING SANITARY SEWERS, MANHOLES, SEPTIC TANKS AND SEPTIC FIELDS SHALL BE REMOVED WITHIN THE LIMITS OF THE NEW WORK. ALL EXISTING INFRASTRUCTURE OUTSIDE OF THE WORK LIMITS SHALL BE ABANDONED IN PLACE, AS PER SPECIFICATIONS, INCIDENTAL TO THE WORK.
17. ALL SANITARY MANHOLES TO BE 1050mmØ UNLESS OTHERWISE NOTED.
18. MANHOLES OR ANY OTHER CHAMBERS SHALL BE PRE-CAST CONCRETE STRUCTURES (SEE DETAILS), INCLUDING STANDARD FRAME AND COVERS CAPABLE OF WITHSTANDING TRAFFIC LOADING (H-20). ADJUSTABLE FRAME AND COVER SHALL BE USED WITHIN ASPHALT ROADWAY, OTHERWISE USE STANDARD COVERS.
19. CONTRACTOR SHALL CONNECT ALL NEW SERVICES TO EXISTING BUILDINGS c/w MANUFACTURER RECOMMENDED COUPLING/FITTING UNLESS OTHERWISE NOTED.
20. RECONNECTION OF EXISTING SEWER MAIN AND SERVICE PIPE TO BE DONE AT END OF EACH DAY.
21. SANITARY PIPE TO GO THROUGH FULL LENGTH 250mmØ CASING WHEN CROSSING ABOVE A WATERMAIN. CASING PIPE TO BE CENTERED ON WATER MAIN c/w LINK SEALS AT EACH END OF CASING AND SPACER IN THE CENTER.
22. CONTRACTOR SHALL PERFORM PERCOLATION TESTS PRIOR TO CONSTRUCTION OF NEW SEPTIC SYSTEMS TO CONFIRM SOIL CONDITION.
23. SEPTIC SYSTEMS SHALL BE INSTALLED BY CERTIFIED AND LICENSED INSTALLERS WHO COMPLY WITH LOCAL AUTHORITY HAVING JURISDICTION.
24. 50mm THICK CLOSED CELL INSULATION TO BE PLACED ON MAINS AND SERVICES WHERE COVER IS LESS THAN 1.8m. INSULATION TO BE MIN. 1.2m WIDE.
25. CONTRACTOR SHALL ENSURE THAT THE WORK IS COMPLETED WITHOUT SURCHARGING OF RAW SEWAGE. PROVIDE TEMPORARY PUMPING OR VACUUM EQUIPMENT AS REQUIRED. THIS SHALL BE INCIDENTAL TO THE WORK.
26. ALL DITCHES DISTURBED DURING THE COURSE OF THE WORK WILL BE CLEANED OUT AND RESHAPED BY THE CONTRACTOR AT HIS OWN EXPENSE AT THE END OF EACH WORK DAY, ALL TO THE SATISFACTION OF THE DEPARTMENTAL REPRESENTATIVE.
27. NEW WATER MAIN SHOWN FOR INFORMATION PURPOSES ONLY, REFER TO "CW" WATER MAIN DRAWINGS.
28. ALL DISTURBED AREAS SHALL BE REINSTATED TO PREVIOUS CONDITIONS OR BETTER; IN ACCORDANCE WITH THE SPECIFICATIONS.
29. ALL GRASSED AREAS DISTURBED DURING CONSTRUCTION SHALL BE RESTORED IN ACCORDANCE WITH THE SPECIFICATIONS.
30. EXISTING ASPHALT AND CRUSHED ROCK DRIVEWAYS AFFECTED BY THE WORK SHALL BE RESTORED IN ACCORDANCE WITH THE SPECIFICATIONS OR MATCH EXISTING CONDITIONS IF NOT SPECIFIED.
31. TACK COAT SHALL BE PLACED ON ALL EXISTING ASPHALT SURFACES PRIOR TO ASPHALT PLACEMENT.
32. REFER TO SPECIFICATIONS FOR GEOTECHNICAL REPORT.
33. WHERE EXISTING ELECTRICAL SERVICES ARE PROVIDED TO EACH CAMP SITE, THE CONTRACTOR SHALL BE AWARE THAT EACH CAMP SITE HAS IT'S OWN DIRECT SERVICE FROM THE ELECTRICAL PANEL TO THE CAMP SITE. THEREFORE THERE WILL BE SEVERAL CABLES ADJACENT TO ONE ANOTHER ALONG THE MAIN ROUTE.

LEGEND:	
	NEW SANITARY SEWER
	NEW WATER MAIN
	NEW U/G UTILITY LINE
	TREE CLEARING LIMIT
	NEW SANITARY MANHOLE
	NEW SANITARY END CAP
	EXISTING WATER MAIN
	EXISTING SANITARY SEWER
	EXISTING FENCE
	EXISTING GRAVEL ROAD OR TRAIL
	EXISTING O/H UTILITY LINE
	EXISTING U/G ELECTRICAL LINE(S) (1 OR MORE)
	EXISTING TREE LINE
	EXISTING POWER PEDESTAL / OTENTIK POWER SUPPLY
	EXISTING VALVE
	EXISTING SANITARY MANHOLE
	EXISTING VALVE IN CHAMBER
	EXISTING CULVERT
	EXISTING AUGER PROBE / BOREHOLE
	ASPHALT MILLINGS ROADS
	ASPHALT ROADS
	GRAVEL ROADS / TRAILS



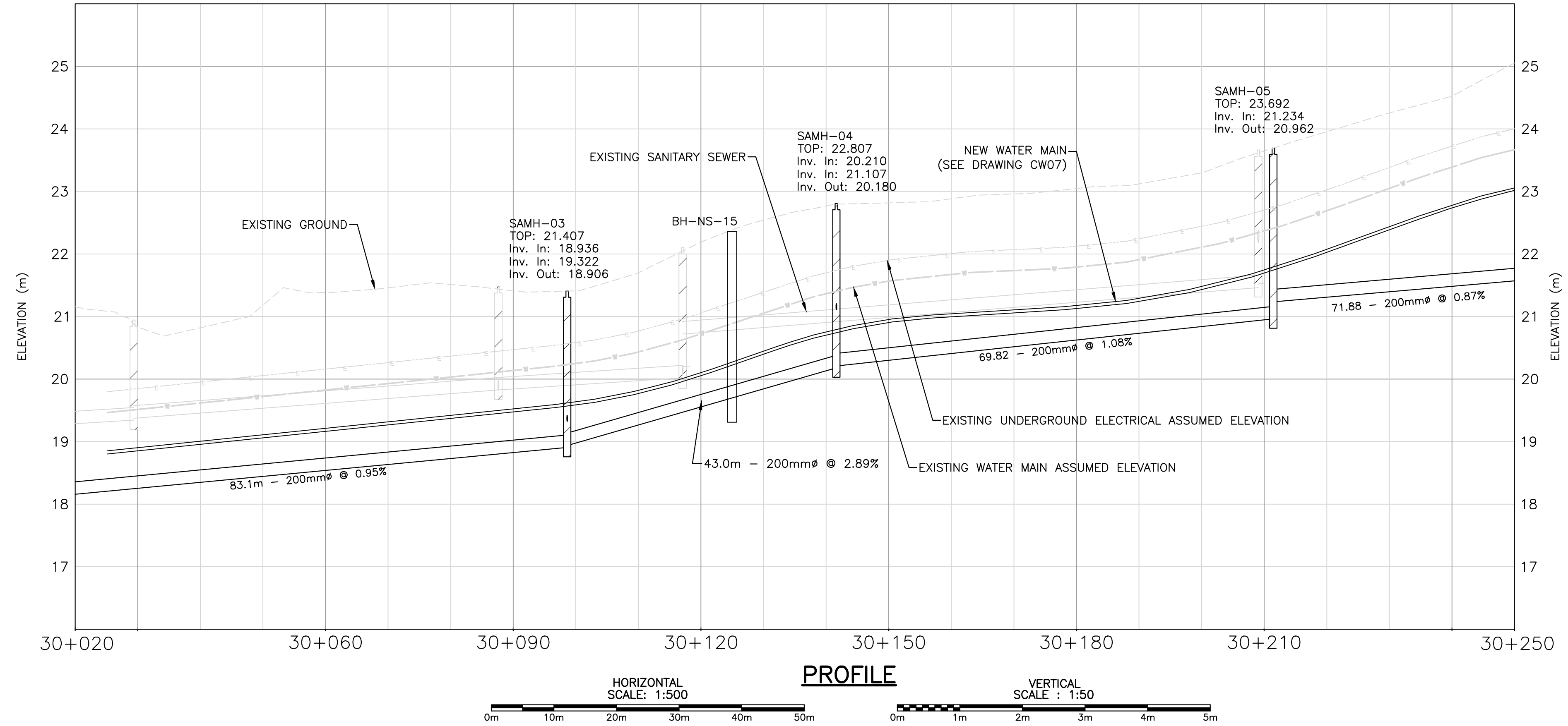
0.0	ISSUED FOR TENDER	05/31 2021
revisions		date
project	project	
TERRA NOVA NATIONAL PARK UTILITY SYSTEMS RECAPITALIZATION PHASE 3		
TERRA NOVA NATIONAL PARK		
drawing	dessin	
NEWMAN SOUND SANITARY SEWER GENERAL NOTES & LEGEND		
designed	A. MELANSON	conçu
date	2021-02-26	
drawn	S. ALLAIN	dessiné
date	2021-02-26	
approved	A. MELANSON	approuvé
date	2021-02-26	
Tender	Soumission	
PCA Project Manager	Administrateur de projets APC	
project number	no. du projet	
1716		
drawing no.	no. du dessin	
CS02		







Structure Table			
MANHOLE ID	EASTING	NORTHING	ELEVATION
SAMH-03	280718.009	5380673.143	21.407
SAMH-03A	280743.026	5380684.256	21.761
SAMH-04	280706.074	5380714.462	22.807
SAMH-04A	280725.915	5380727.099	22.994
SAMH-05	280688.321	5380781.807	23.692

- NOTES:
- SEE GENERAL NOTES AND LEGEND ON DRAWING CS02.
  - CONTRACTOR TO DEFLECT JOINT NOT MORE THAN MANUFACTURER'S MAX. ALLOWABLE DEFLECTION TO FOLLOW SEWER ALIGNMENT.
  - NEW BUILDING SANITARY SERVICES TO BE CORED IN NEAR MANHOLE. CONNECTION TO BE COMPLETED WITH KOR-N-SEAL OR APPROVED EQUAL.
  - SANITARY MANHOLE TOPS TO BE ADJUSTED AS NEEDED TO BETTER BLEND IN WITH SITE, INCIDENTAL TO THE WORK.
  - EXISTING UNDERGROUND ELECTRICAL TO BE PROTECTED AND SUPPORTED AS REQUIRED DURING CONSTRUCTION.
  - ALL SANITARY SEWER MANHOLES TO BE 1050mm DIAMETER UNLESS NOTED OTHERWISE.



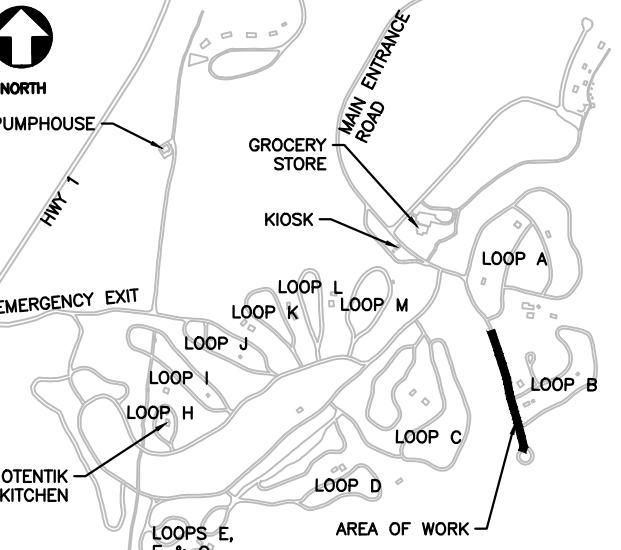


Parks Canada



Englobe

KEY PLAN

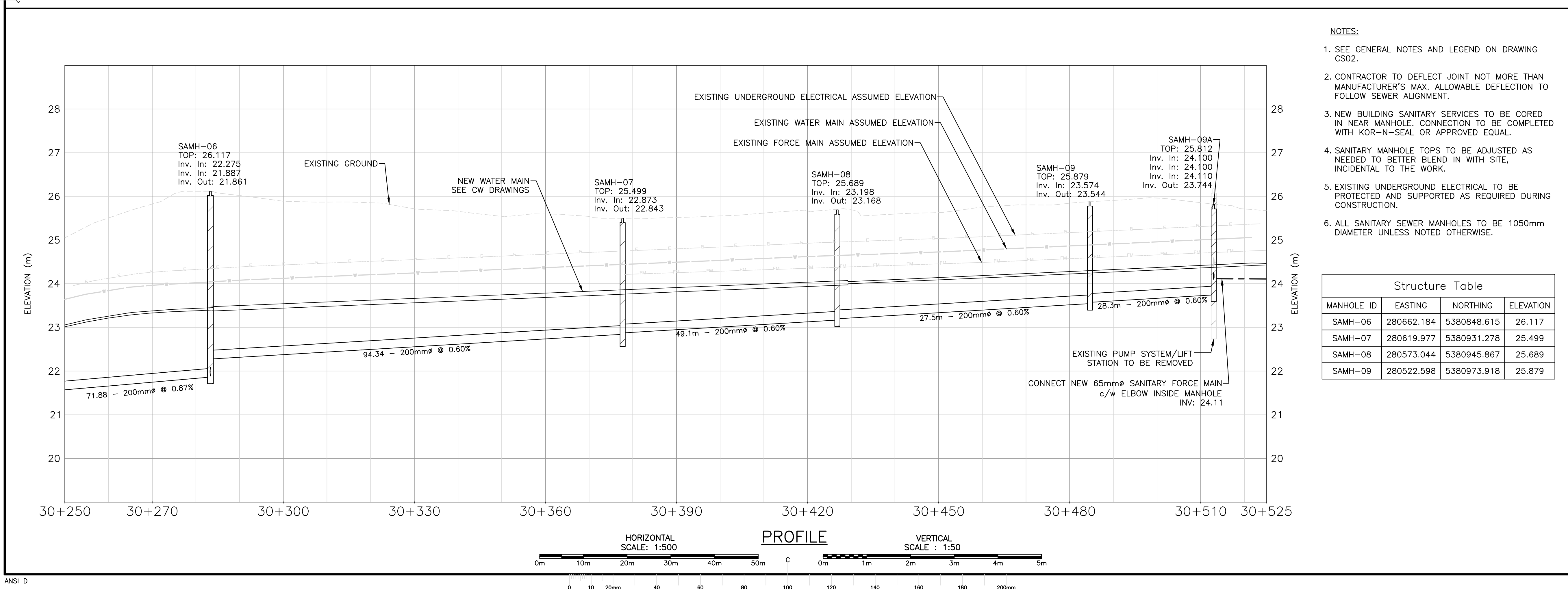
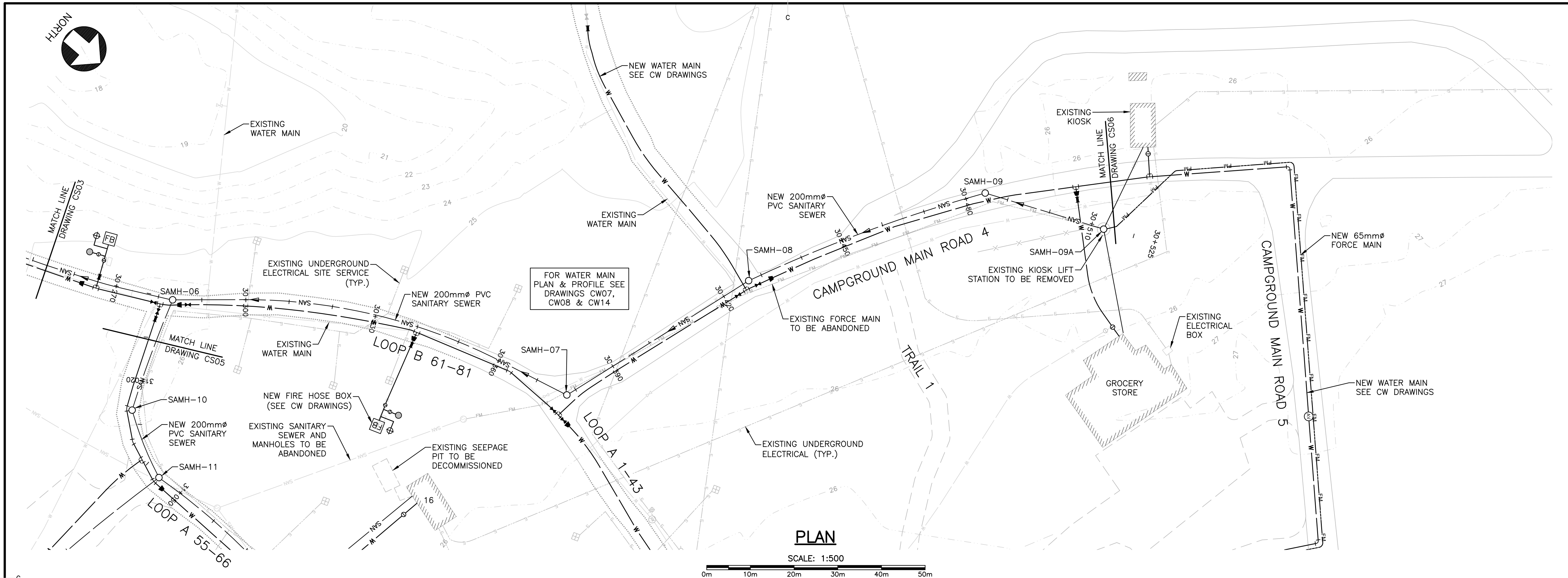


PROVINCE OF NEWFOUNDLAND AND LABRADOR  
ENGINEERING  
PERMIT T0262  
ENGLOBE CORP.  
Signature or Member Number  
(Member-Responsible Charge)

0.0 ISSUED FOR TENDER 05/31/2021

revisions		date
project	TERRA NOVA NATIONAL PARK UTILITY SYSTEMS RECAPITALIZATION PHASE 3	projet
drawing	LOOP A-B & KIOSK SANITARY SEWER PLAN & PROFILE STA. 30+020 TO 30+250	dessin
designed	A. ST-AMAND	conçu
date	2021-02-26	
drawn	A. ST-AMAND	dessiné
date	2021-02-26	
approved	A. MELANSON	approuvé
date	2021-02-26	
Tender		Soumission
PCA Project Manager	Administrateur de projets APC	
project number	1716	no. du projet
drawing no.	CS03	no. du dessin





KEY PLAN

PROVINCE OF NEWFOUNDLAND AND LABRADOR

ENGINEERING PERMIT T0282

ENGLOBE CORP.

Signature or Member Number (Member-Responsible Charge)

0.0 ISSUED FOR TENDER 05/31/2021

revisions

project

project

designed A. ST-AMAND conçu

date 2021-02-26

drawn A. ST-AMAND dessiné

date 2021-02-26

approved A. MELANSON approuvé

date 2021-02-26

Tender Soumission

PCA Project Manager Administrateur de projets APC

project number no. du projet

1716

drawing no. no. du dessin

CS04









EXISTING  
UNDERGROUND  
ELECTRICAL  
(TYP.)

NOTES:

1. SEE GENERAL NOTES AND LEGEND ON DRAWING CS02.
2. CONTRACTOR TO DEFLECT JOINT NOT MORE THAN MANUFACTURER'S MAX. ALLOWABLE DEFLECTION TO FOLLOW SEWER ALIGNMENT.
3. NEW BUILDING SANITARY SERVICES TO BE CORED IN NEAR MANHOLE. CONNECTION TO BE COMPLETED WITH KOR-N-SEAL OR APPROVED EQUAL.
4. EXISTING UNDERGROUND ELECTRICAL TO BE PROTECTED AND SUPPORTED AS REQUIRED DURING CONSTRUCTION.

NEW 65mmØ SANITARY  
FORCE MAIN

NEW 65mmØ  
WATER MAIN

EXISTING PUMP  
SYSTEM/LIFT STATION  
TO BE REMOVED

SAMH-09A

SEE DRAWING CS04  
FOR SANITARY SEWER  
CONTINUATION

FOR WATER MAIN  
PLAN & PROFILE SEE  
DRAWINGS CW08,  
CW09 & CW14

CAMPGROUND TRAIL

EXISTING UNDERGROUND  
ELECTRICAL SITE SERVICE  
(TYP.)

EXISTING UNDERGROUND  
ELECTRICAL (TYP.)

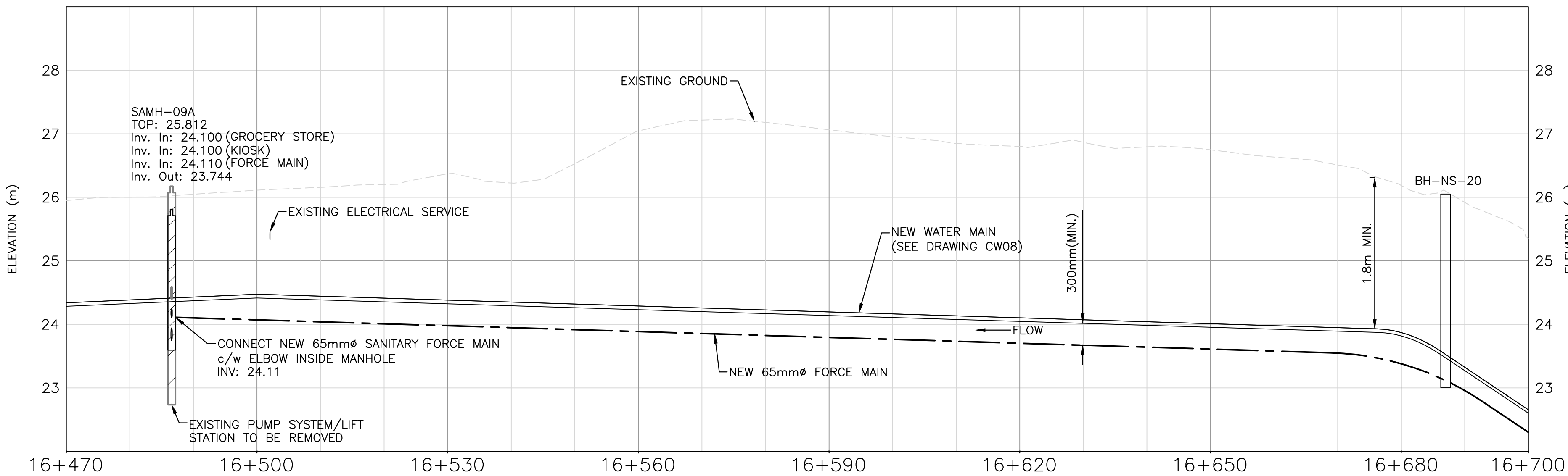
SEE DRAWING CW14 FOR  
FIRE HOSE BOX, STAND  
PIPE AND VALVE  
REPLACEMENT (TYP.)

NEW 50mmØ  
WATER MAIN

LOOP A 1-43

PLAN

SCALE: 1:500



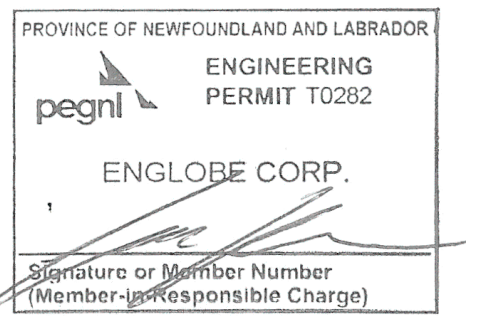
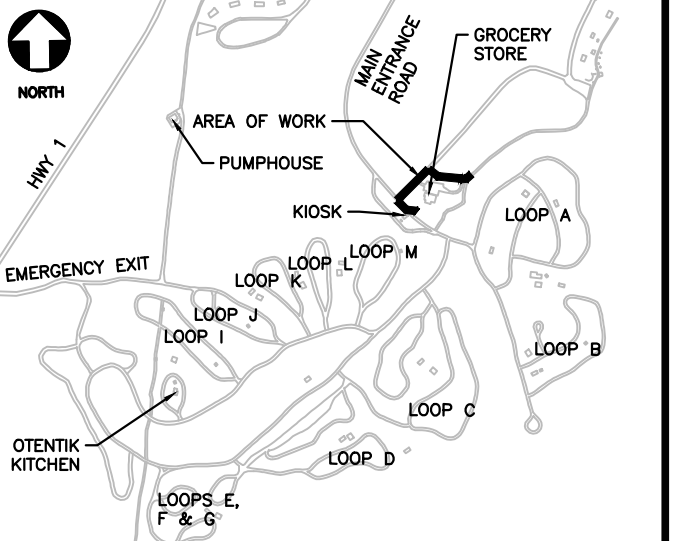
PROFILE

HORIZONTAL  
SCALE: 1:500

VERTICAL  
SCALE : 1:50



KEY PLAN



0.0	ISSUED FOR TENDER	05/31 2021
revisions		date

project	TERRA NOVA NATIONAL PARK UTILITY SYSTEMS RECAPITALIZATION PHASE 3	projet
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drawing	TERRA NOVA NATIONAL PARK	dessin
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DAY-USE FORCE MAIN  
PLAN & PROFILE  
STA. 16+470 TO 16+700

designed	A. ST-AMAND	conçu
date	2021-02-26	
drawn	A. ST-AMAND	dessiné
date	2021-02-26	
approved	A. MELANSON	approuvé
date	2021-02-26	
Tender		Soumission

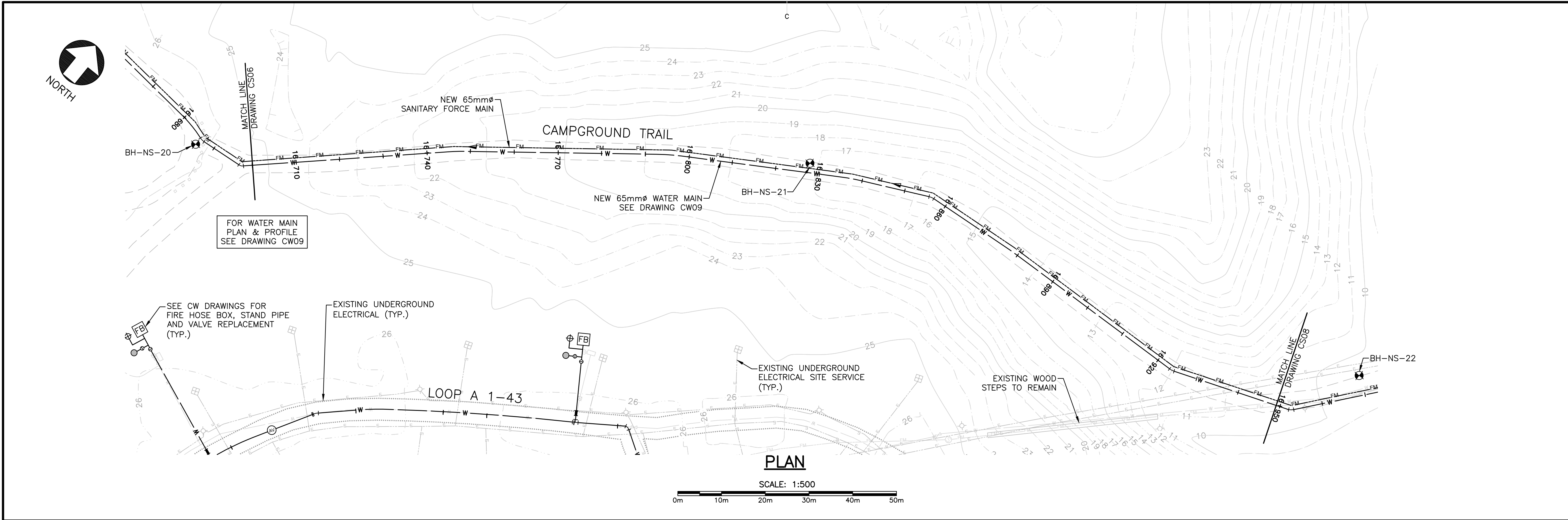
PCA Project Manager	Administrateur de projets APC
project number	no. du projet

1716

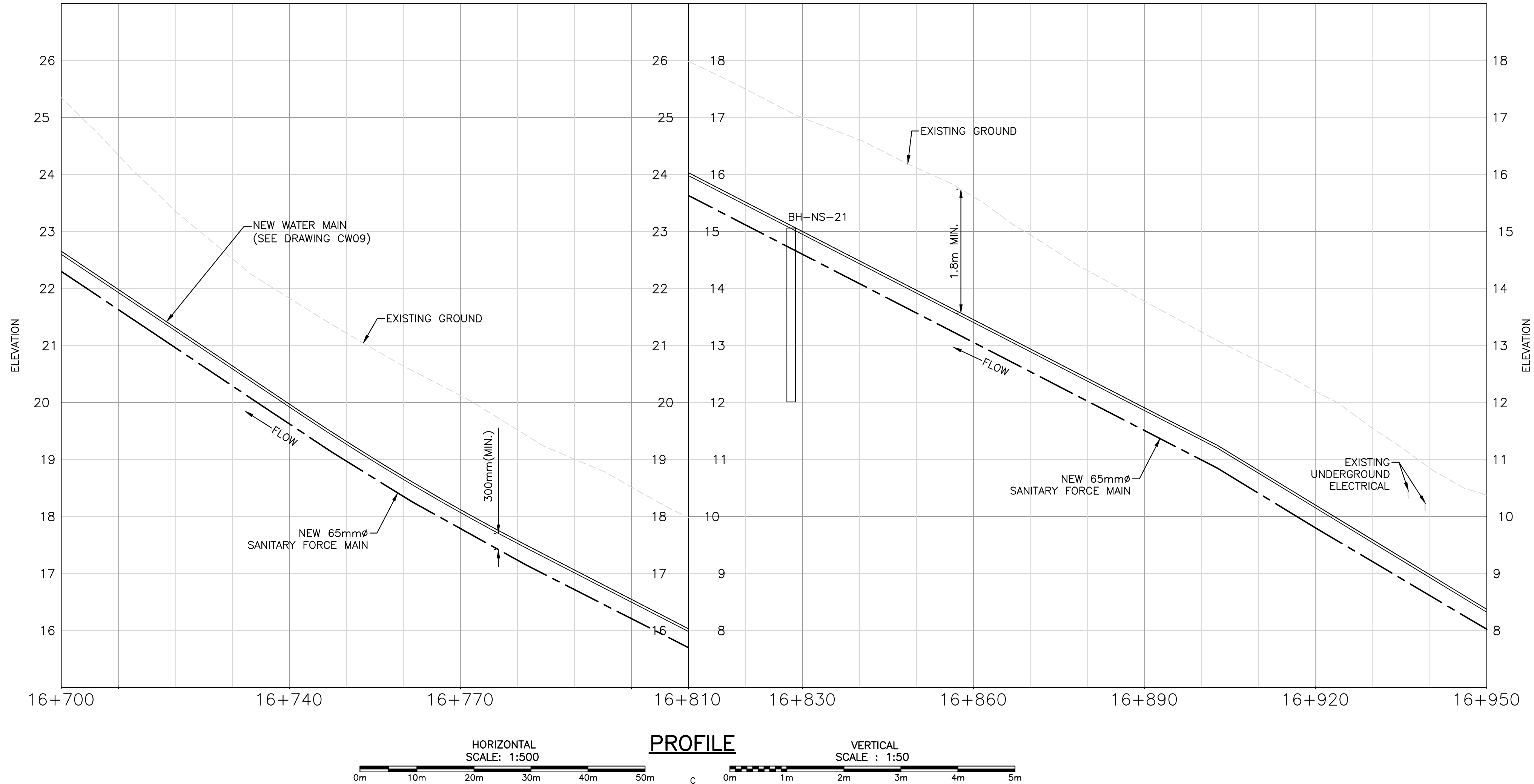
drawing no.	no. du dessin
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CS06






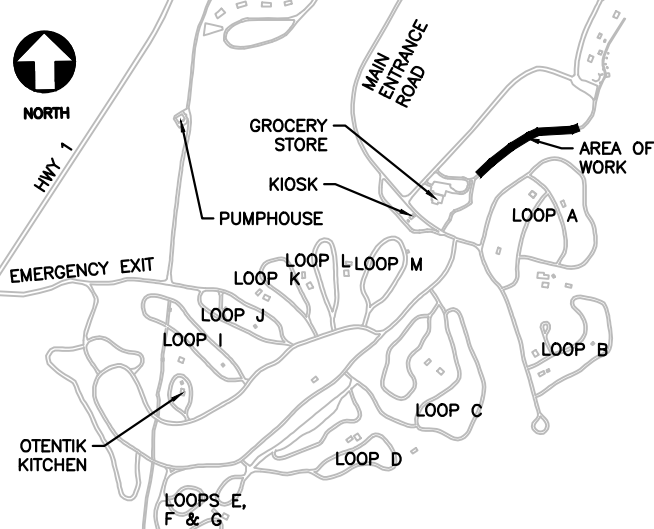
- NOTES:
1. SEE GENERAL NOTES AND LEGEND ON DRAWING CS02.
  2. CONTRACTOR TO DEFLECT JOINT NOT MORE THAN MANUFACTURER'S MAX. ALLOWABLE DEFLECTION TO FOLLOW SEWER ALIGNMENT.
  3. NEW BUILDING SANITARY SERVICES TO BE CORED IN NEAR MANHOLE. CONNECTION TO BE COMPLETED WITH KOR-N-SEAL OR APPROVED EQUAL.
  4. SANITARY MANHOLE TOPS TO BE ADJUSTED AS NEEDED TO BETTER BLEND IN WITH SITE, INCIDENTAL TO THE WORK.
  5. EXISTING SANITARY SEWER MANHOLES AND PIPES TO BE REMOVED OR ABANDONED AS SHOWN ON DRAWINGS OR AS DESCRIBED IN SPECIFICATIONS.
  6. EXISTING UNDERGROUND ELECTRICAL TO BE PROTECTED AND SUPPORTED AS REQUIRED DURING CONSTRUCTION.
  7. ALL SANITARY SEWER MANHOLES TO BE 1050mm UNLESS NOTED OTHERWISE.

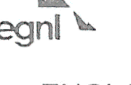





Parks CanadaParcs Canada



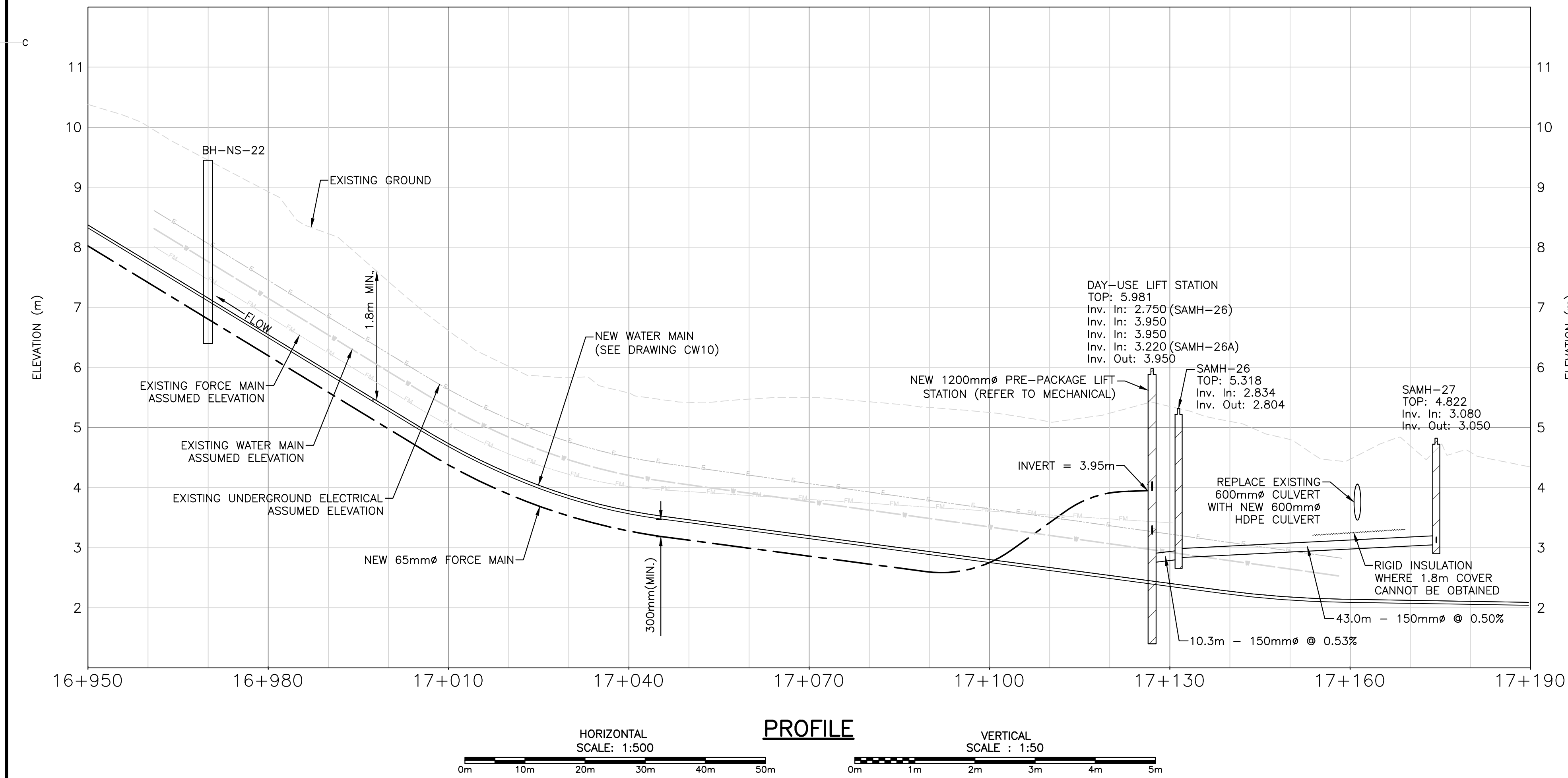
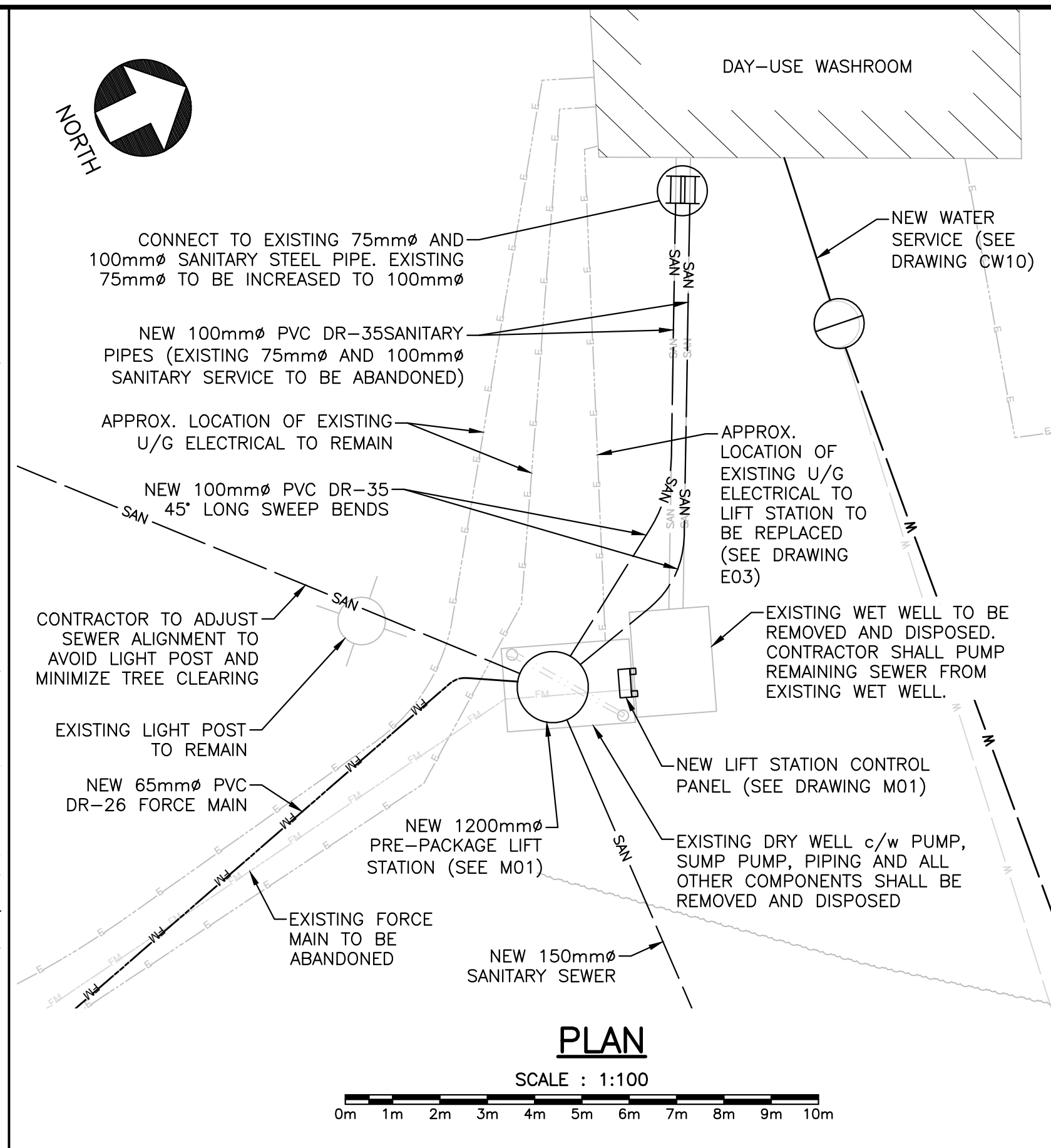
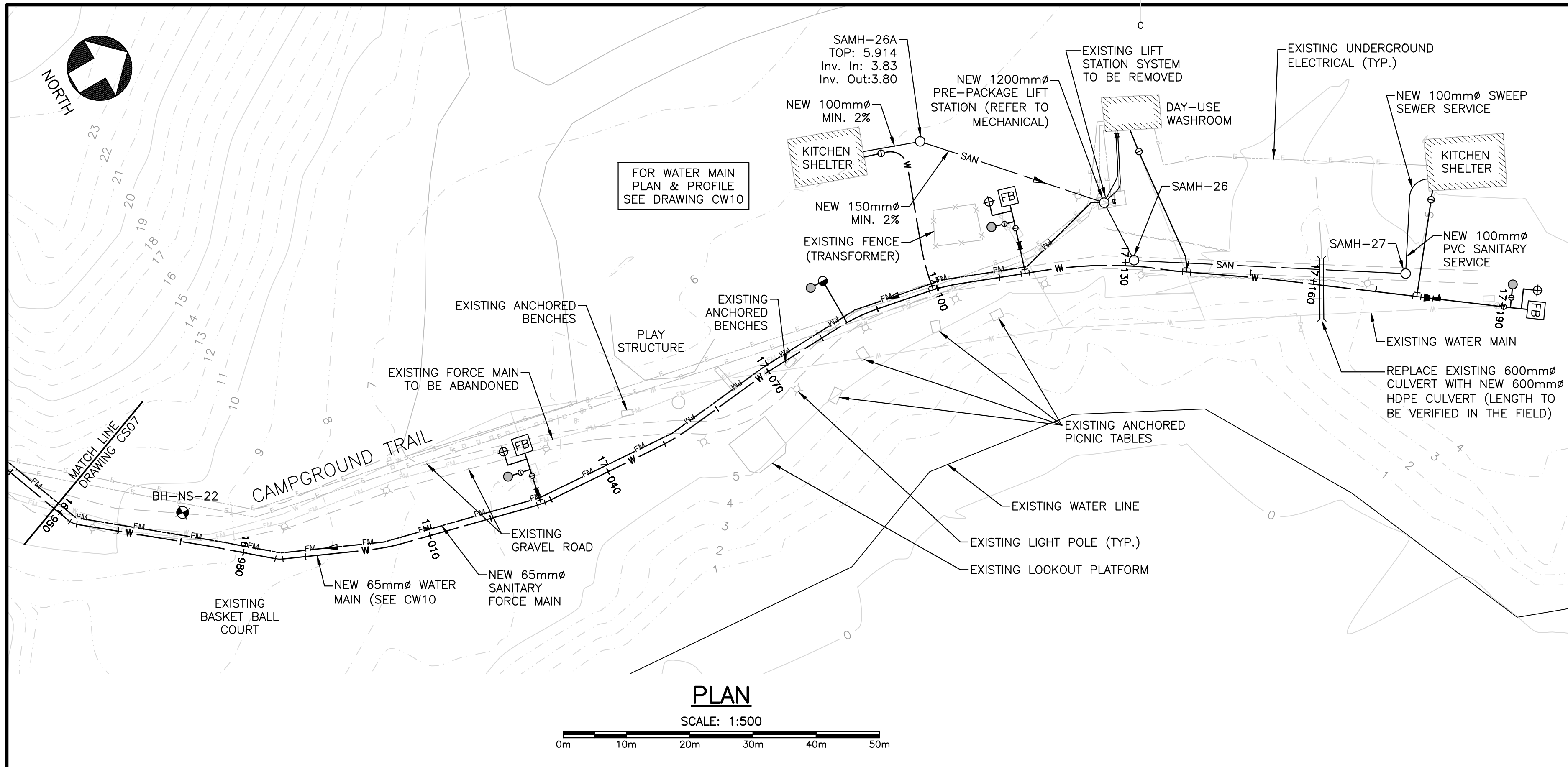
KEY PLAN

PROVINCE OF NEWFOUNDLAND AND LABRADOR  
  
ENGINEERING PERMIT T0282  
ENGLOBE CORP.  
Signature or Member Number  
(Member-Responsible Charge)



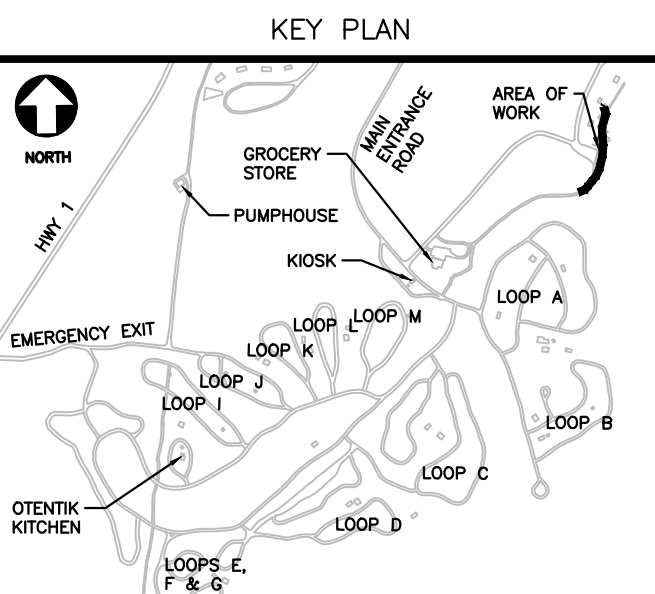
0.0	ISSUED FOR TENDER	05/31 2021
revisions		date
project	project	
TERRA NOVA NATIONAL PARK UTILITY SYSTEMS RECAPITALIZATION PHASE 3		
TERRA NOVA NATIONAL PARK		
drawing	dessin	
DAY-USE FORCE MAIN PLAN & PROFILE STA. 16+700 TO 16+950		
designed	A. ST-AMAND	conçu
date	2021-02-26	
drawn	A. ST-AMAND	dessiné
date	2021-02-26	
approved	A. MELANSON	approuvé
date	2021-02-26	
Tender	Soumission	
PCA Project Manager	Administrateur de projets APC	
project number	no. du projet	
1716		
drawing no.	no. du dessin	
CS07		





NOTES:

1. SEE GENERAL NOTES AND LEGEND ON DRAWING CS02.
2. CONTRACTOR TO DEFLECT JOINT NOT MORE THAN MANUFACTURER'S MAX. ALLOWABLE DEFLECTION TO FOLLOW SEWER ALIGNMENT.
3. NEW BUILDING SANITARY SERVICES TO BE CORED IN NEAR MANHOLE. CONNECTION TO BE COMPLETED WITH KOR-N-SEAL OR APPROVED EQUAL.
4. SANITARY MANHOLE TOPS TO BE ADJUSTED AS NEEDED TO BETTER BLEND IN WITH SITE, INCIDENTAL TO THE WORK.
5. EXISTING UNDERGROUND ELECTRICAL TO BE PROTECTED AND SUPPORTED AS REQUIRED DURING CONSTRUCTION.
6. ALL SANITARY SEWER MANHOLES TO BE 1050mmØ UNLESS NOTED OTHERWISE.



0.0	ISSUED FOR TENDER	05/31 2021
revisions		date

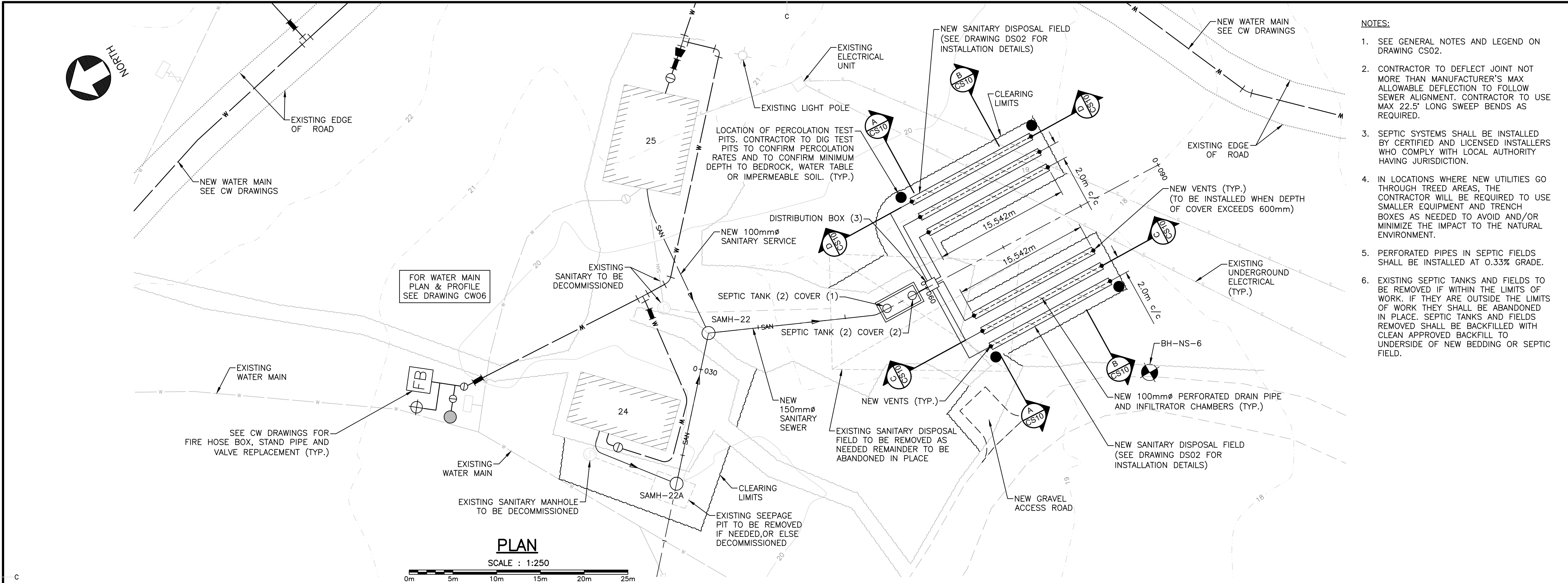
project TERRA NOVA NATIONAL PARK UTILITY SYSTEMS RECAPITALIZATION PHASE 3

drawing DAY-USE FORCE MAIN & LIFT STATION PLANS & PROFILE STA. 16+950 TO 17+190

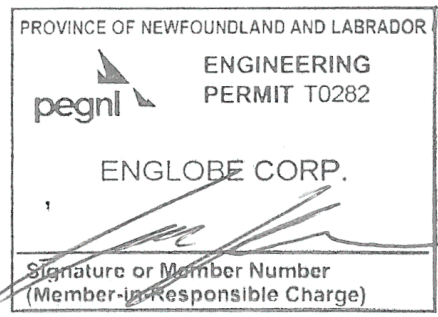
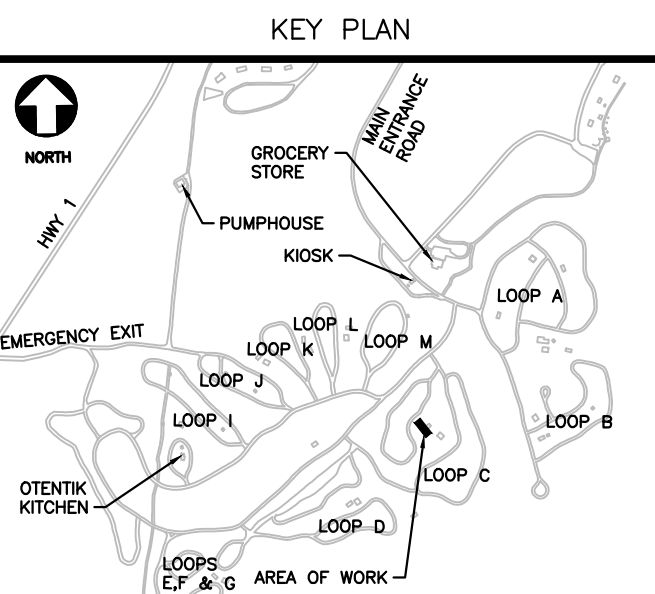
designed	A. ST-AMAND	conçu
date	2021-02-26	
drawn	A. ST-AMAND	dessiné
date	2021-02-26	
approved	A. MELANSON	approuvé
date	2021-02-26	
Tender		Soumission

PCA Project Manager	Administrateur de projets APC
project number	no. du projet
1716	
drawing no.	no. du dessin
CS08	



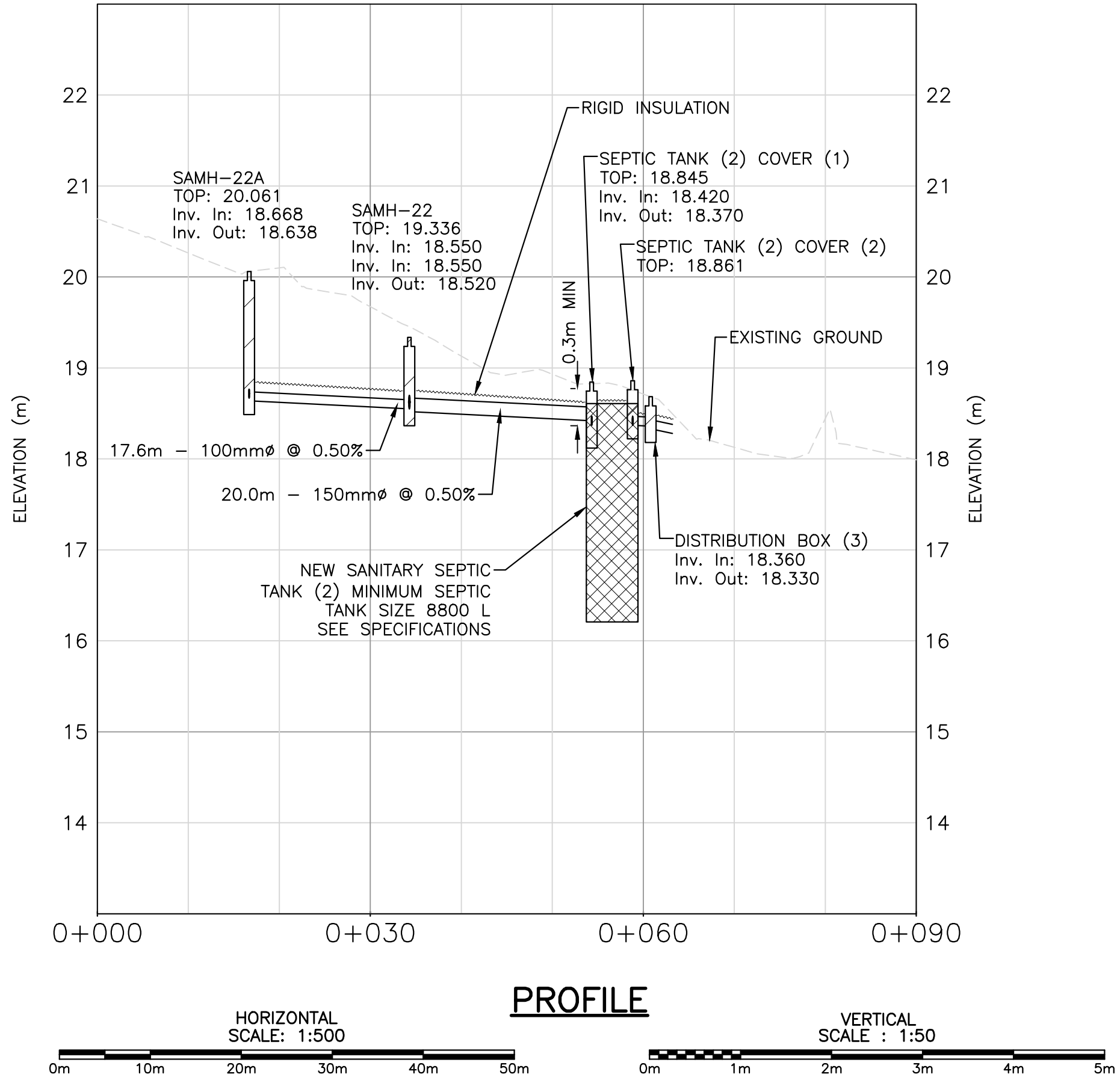


- NOTES:
1. SEE GENERAL NOTES AND LEGEND ON DRAWING CS02.
  2. CONTRACTOR TO DEFLECT JOINT NOT MORE THAN MANUFACTURER'S MAX ALLOWABLE DEFLECTION TO FOLLOW SEWER ALIGNMENT. CONTRACTOR TO USE MAX 22.5' LONG SWEEP BENDS AS REQUIRED.
  3. SEPTIC SYSTEMS SHALL BE INSTALLED BY CERTIFIED AND LICENSED INSTALLERS WHO COMPLY WITH LOCAL AUTHORITY HAVING JURISDICTION.
  4. IN LOCATIONS WHERE NEW UTILITIES GO THROUGH TREED AREAS, THE CONTRACTOR WILL BE REQUIRED TO USE SMALLER EQUIPMENT AND TRENCH BOXES AS NEEDED TO AVOID AND/OR MINIMIZE THE IMPACT TO THE NATURAL ENVIRONMENT.
  5. PERFORATED PIPES IN SEPTIC FIELDS SHALL BE INSTALLED AT 0.33% GRADE.
  6. EXISTING SEPTIC TANKS AND FIELDS TO BE REMOVED IF WITHIN THE LIMITS OF WORK. IF THEY ARE OUTSIDE THE LIMITS OF WORK THEY SHALL BE ABANDONED IN PLACE. SEPTIC TANKS AND FIELDS REMOVED SHALL BE BACKFILLED WITH CLEAN APPROVED BACKFILL TO UNDERSIDE OF NEW BEDDING OR SEPTIC FIELD.



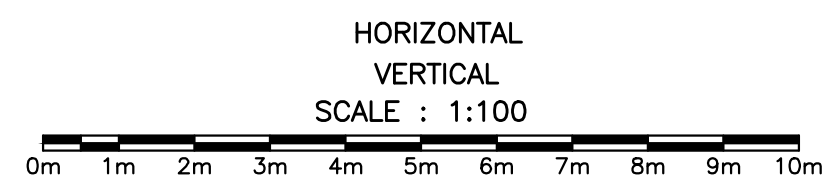
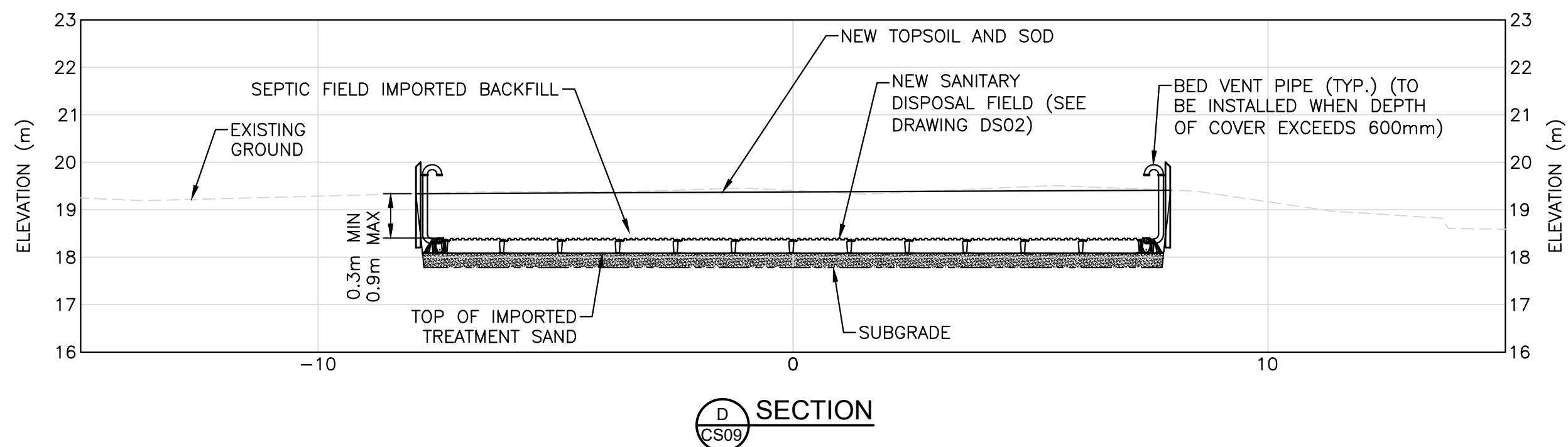
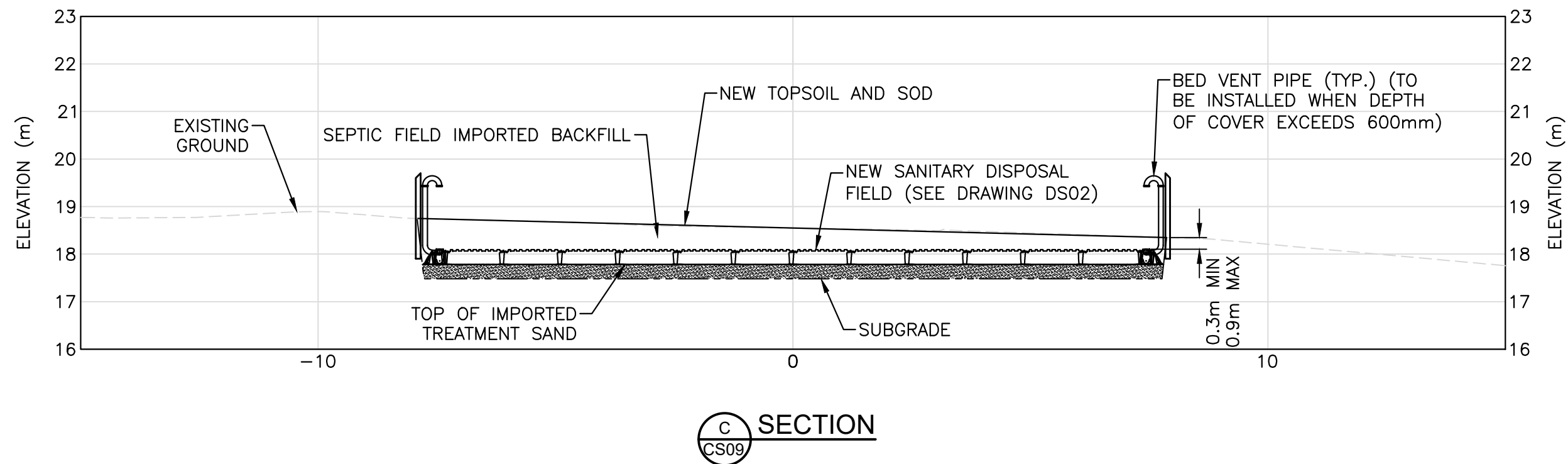
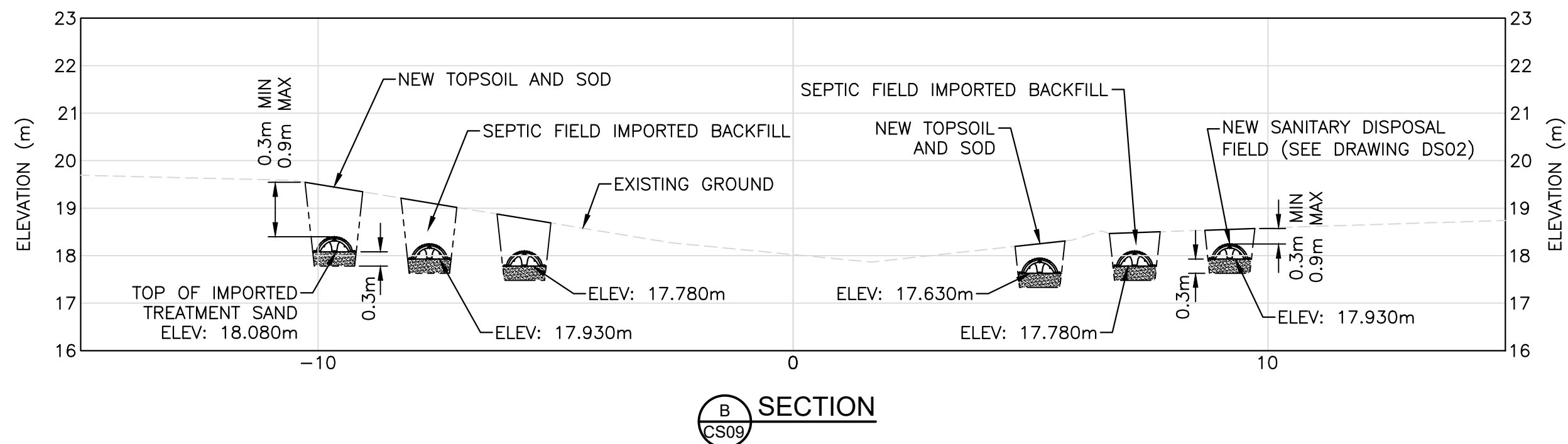
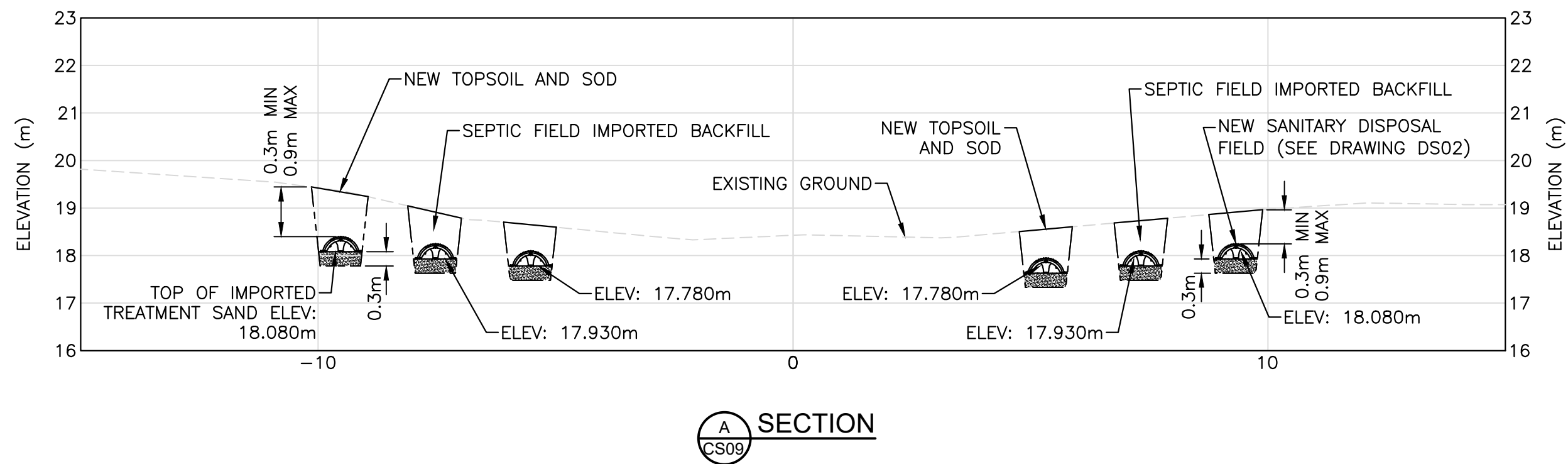
DESIGN CRITERIA	VALUE APPLIED	UNITS/COMMENTS
TYPE OF EFFLUENT	DOMESTIC	FROM WASHROOMS AND COOK SHELTERS
WATER WELL	N/A	
AVERAGE EFFLUENT FLOW	5.85	m <sup>3</sup> /d
PEAK DAILY EFFLUENT FLOW	24	m <sup>3</sup> /d
TANKAGE	8.78	m <sup>3</sup>
EFFLUENT FILTER	YES	
HYDRAULIC RETENTION TIME	1.5	DAYS
EXISTING SOIL INFILTRATION RATE	0.0083	cm/sec,
	7,200	mm/d
TREATMENT CELLS	1	CONCRETE SEPTIC TANK
TREATMENT LEVEL	B 1	AS PER CSA STANDARDS
LENGTH OF LINEAR PIPE	93.3	m
LINEAR HYDRAULIC LOADING	62.7	L/(m d);
SEPTIC FIELD AREA	80.5	m <sup>2</sup>
HYDRAULIC FIELD LOADING	72.6	L/(m <sup>2</sup> d);
EFFLUENT BOD <sub>5</sub>	150	mg/L
BOD <sub>5</sub> FIELD LOADING	10896	mg/(m <sup>2</sup> d)

Structure Table			
MANHOLE ID	EASTING	NORTHING	ELEVATION
DISTRIBUTION BOX (3)	280513.183	5380664.975	18.684
SAMH-22	280521.139	5380689.890	19.336
SAMH-22A	280508.055	5380701.675	20.061
SEPTIC TANK (2) COVER (1)	280513.334	5380671.452	18.845
SEPTIC TANK (2) COVER (2)	280513.227	5380666.954	18.861



0.0	ISSUED FOR TENDER	05/31 2021
revisions		date
project	TERRA NOVA NATIONAL PARK UTILITY SYSTEMS RECAPITALIZATION PHASE 3	
drawing	dessin	
designed	A. ST-AMAND	conçu
date	2021-02-26	
drawn	A. ST-AMAND	dessiné
date	2021-02-26	
approved	A. MELANSON	approuvé
date	2021-02-26	
Tender	Soumission	
PCA Project Manager	Administrateur de projets APC	
project number	no. du projet	
	1716	
drawing no.	no. du dessin	
	CS09	



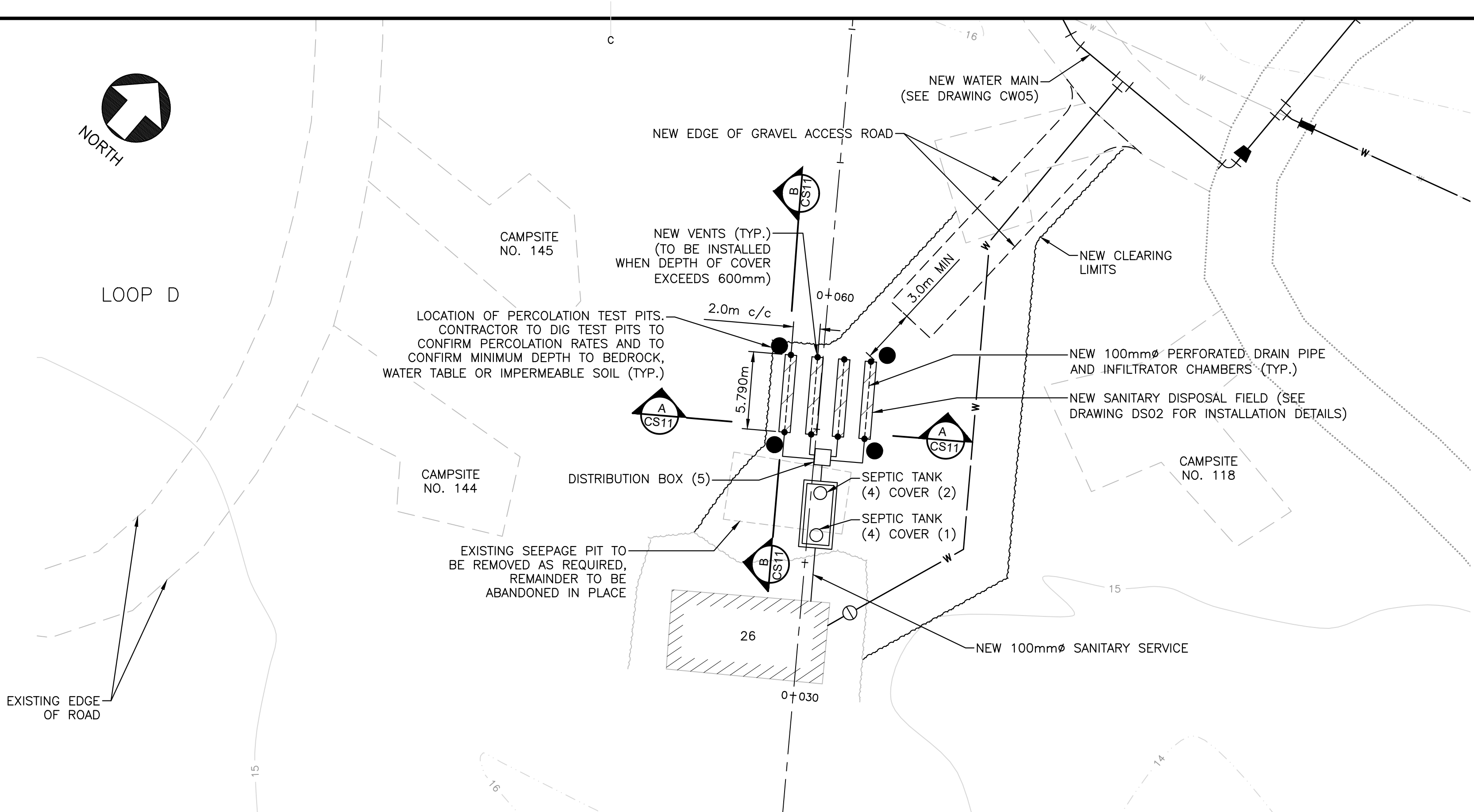


0.0	ISSUED FOR TENDER	05/31 2021
revisions		date
project	project	
TERRA NOVA NATIONAL PARK UTILITY SYSTEMS RECAPITALIZATION PHASE 3		
TERRA NOVA NATIONAL PARK		
drawing	dessin	
BUILDINGS 24 & 25 SEPTIC FIELD CROSS SECTIONS		
designed	A. ST-AMAND	conçu
date	2021-02-26	
drawn	A. ST-AMAND	dessiné
date	2021-02-26	
approved	A. MELANSON	approuvé
date	2021-02-26	
Tender	Soumission	
PCA Project Manager	Administrateur de projets APC	
project number	no. du projet	
1716		
drawing no.	no. du dessin	
CS10		

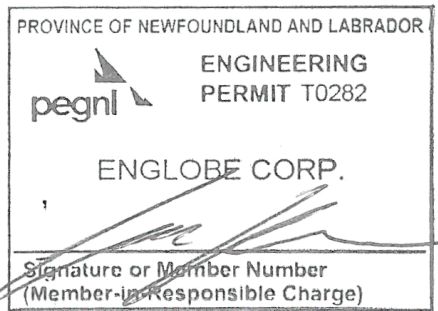
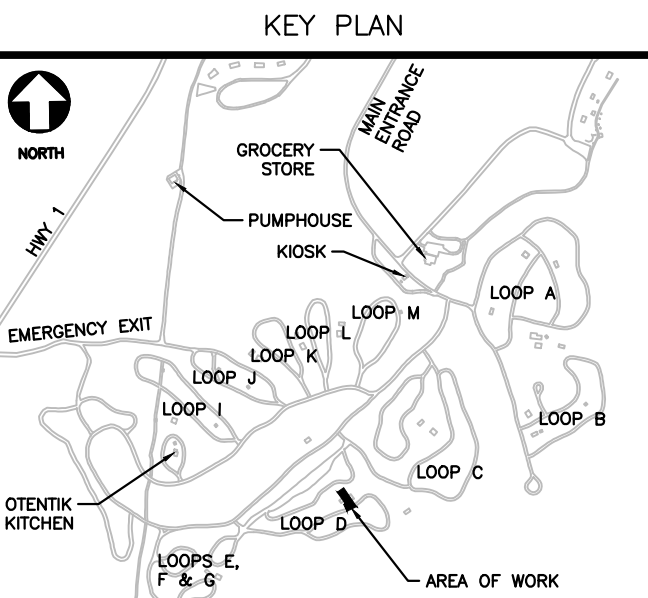


DESIGN CRITERIA	VALUE APPLIED	UNITS/COMMENTS
TYPE OF EFFLUENT	DOMESTIC	FROM WASHROOMS AND COOK SHELTERS
WATER WELL	N/A	
AVERAGE EFFLUENT FLOW	1.5	m <sup>3</sup> /d
PEAK DAILY EFFLUENT FLOW	24	m <sup>3</sup> /d
TANKAGE	2.3	m <sup>3</sup>
EFFLUENT FILTER	YES	
HYDRAULIC RETENTION TIME	1.5	DAYS
EXISTING SOIL INFILTRATION RATE	0,0083	cm/sec.
	7,200	mm/d
TREATMENT CELLS	1	CONCRETE SEPTIC TANK
TREATMENT LEVEL	B 1	AS PER CSA STANDARDS
LENGTH OF LINEAR PIPE	23.2	m
LINEAR HYDRAULIC LOADING	64.8	L/(m d);
SEPTIC FIELD AREA	20.0	m <sup>2</sup>
HYDRAULIC FIELD LOADING	75.0	L/(m <sup>2</sup> d);
EFFLUENT BOD <sub>5</sub>	150	mg/L
BOD <sub>5</sub> FIELD LOADING	11249	mg/(m <sup>2</sup> d)

Structure Table			
MANHOLE ID	EASTING	NORTHING	ELEVATION
DISTRIBUTION BOX (5)	280487.022	5380540.672	14.772
SEPTIC TANK (4) COVER (1)	280490.893	5380535.306	15.315
SEPTIC TANK (4) COVER (2)	280488.161	5380539.074	15.315



- NOTES:
- SEE GENERAL NOTES AND LEGEND ON DRAWING CS02.
  - CONTRACTOR TO DEFLECT JOINT NOT MORE THAN MANUFACTURER'S MAX ALLOWABLE DEFLECTION TO FOLLOW SEWER ALIGNMENT. CONTRACTOR TO USE MAX 22.5° LONG SWEEP BENDS AS REQUIRED.
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  - IN LOCATIONS WHERE NEW UTILITIES GO THROUGH TREED AREAS, THE CONTRACTOR WILL BE REQUIRED TO USE SMALLER EQUIPMENT AND TRENCH BOXES AS NEEDED TO AVOID AND/OR MINIMIZE THE IMPACT TO THE NATURAL ENVIRONMENT.
  - PERFORATED PIPES IN SEPTIC FIELDS SHALL BE INSTALLED AT 0.33% GRADE.
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0.0	ISSUED FOR TENDER	05/31 2021
revisions		date

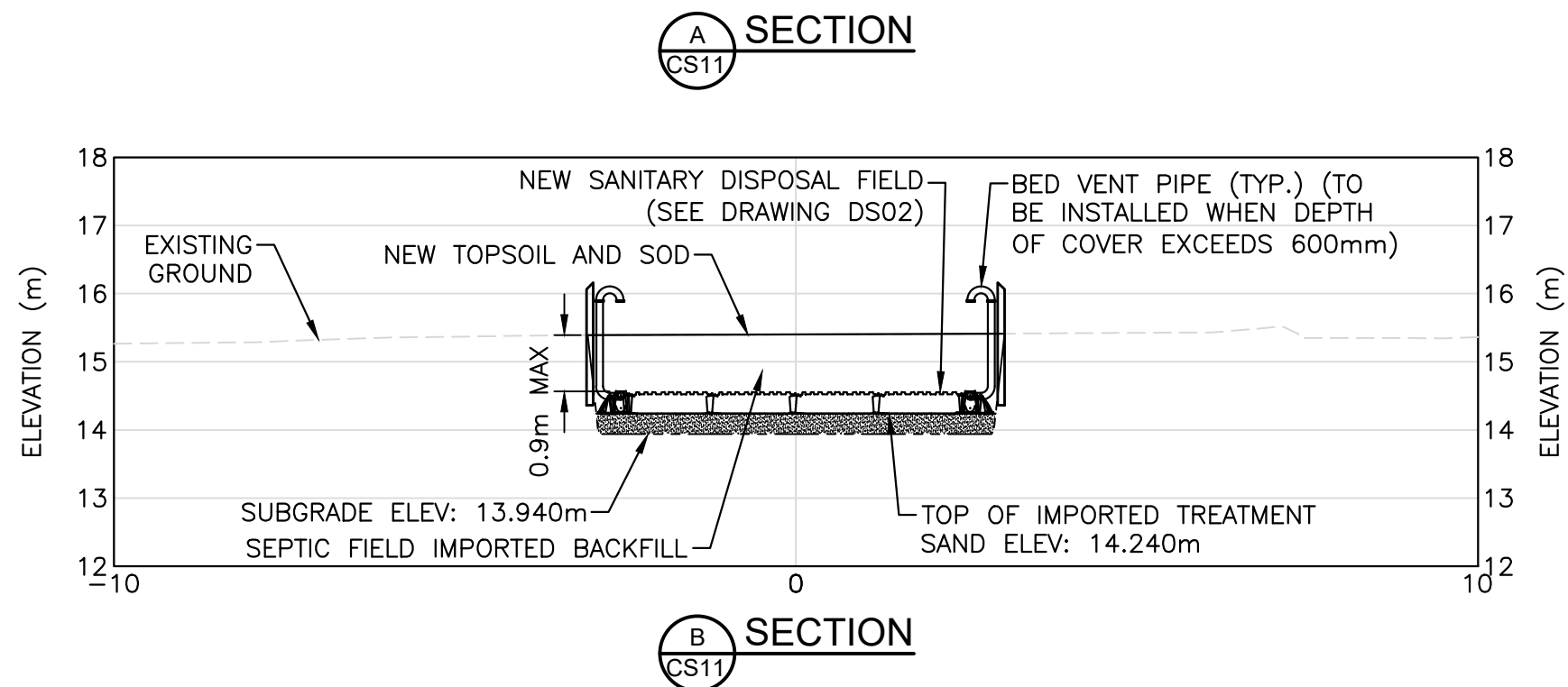
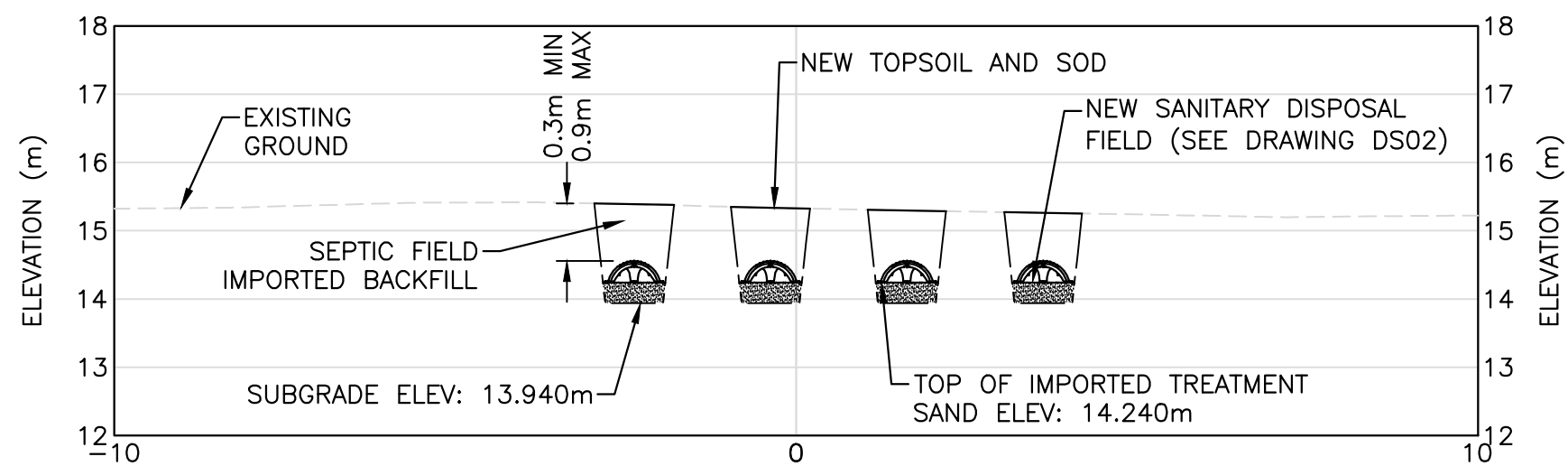
project TERRA NOVA NATIONAL PARK UTILITY SYSTEMS RECAPITALIZATION PHASE 3

drawing TERRA NOVA NATIONAL PARK BUILDING 26 SEPTIC FIELD PLAN, PROFILE & CROSS SECTIONS

designed	A. ST-AMAND	conçu
date	2021-02-26	
drawn	A. ST-AMAND	dessiné
date	2021-02-26	
approved	A. MELANSON	approuvé
date	2021-02-26	
Tender		Soumission
PCA Project Manager	Administrateur de projets APC	
project number		no. du projet

1716

drawing no. CS11 no. du dessin

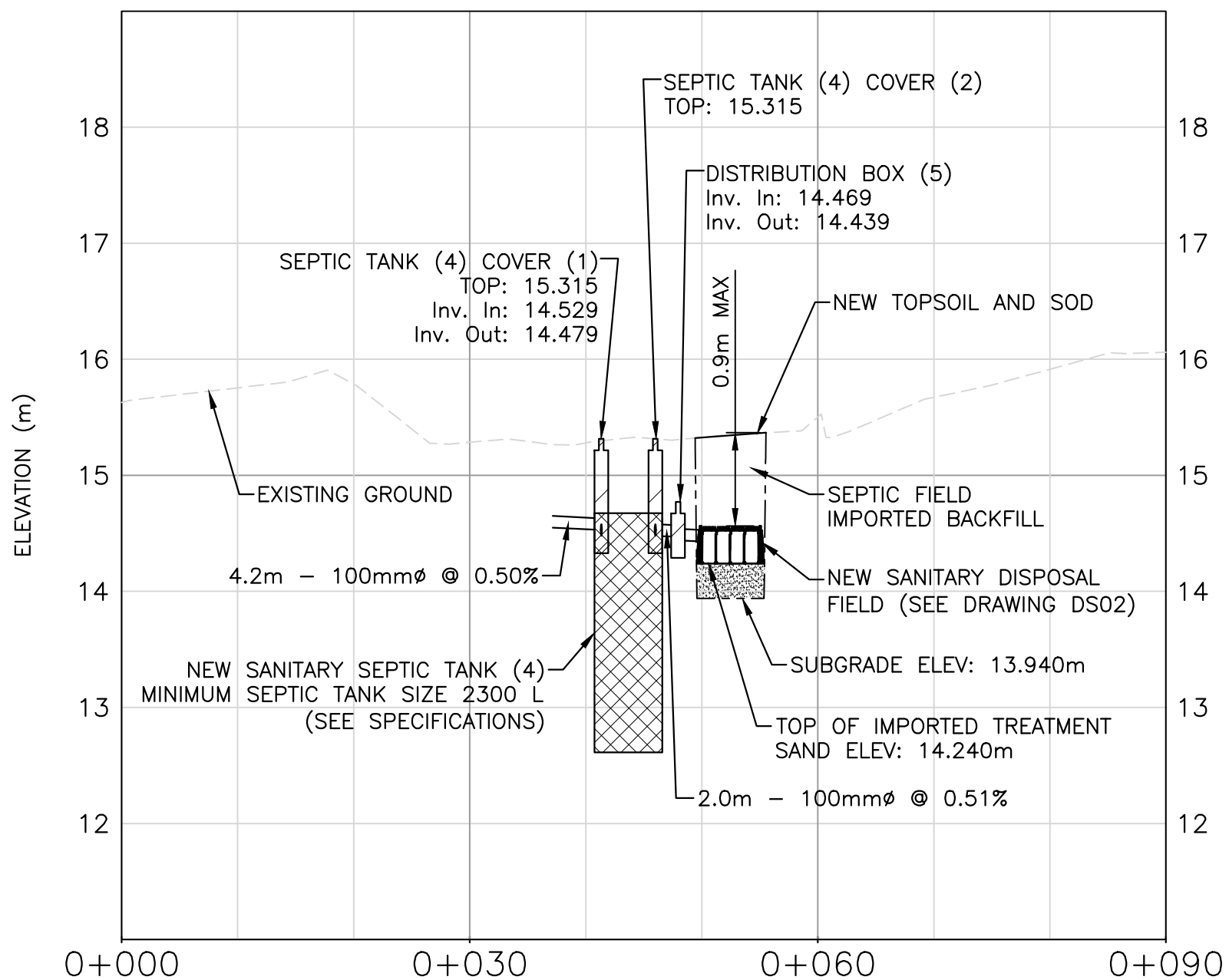


## SECTIONS

HORIZONTAL

VERTICAL

SCALE : 1:100



## PROFILE

HORIZONTAL SCALE: 1:500

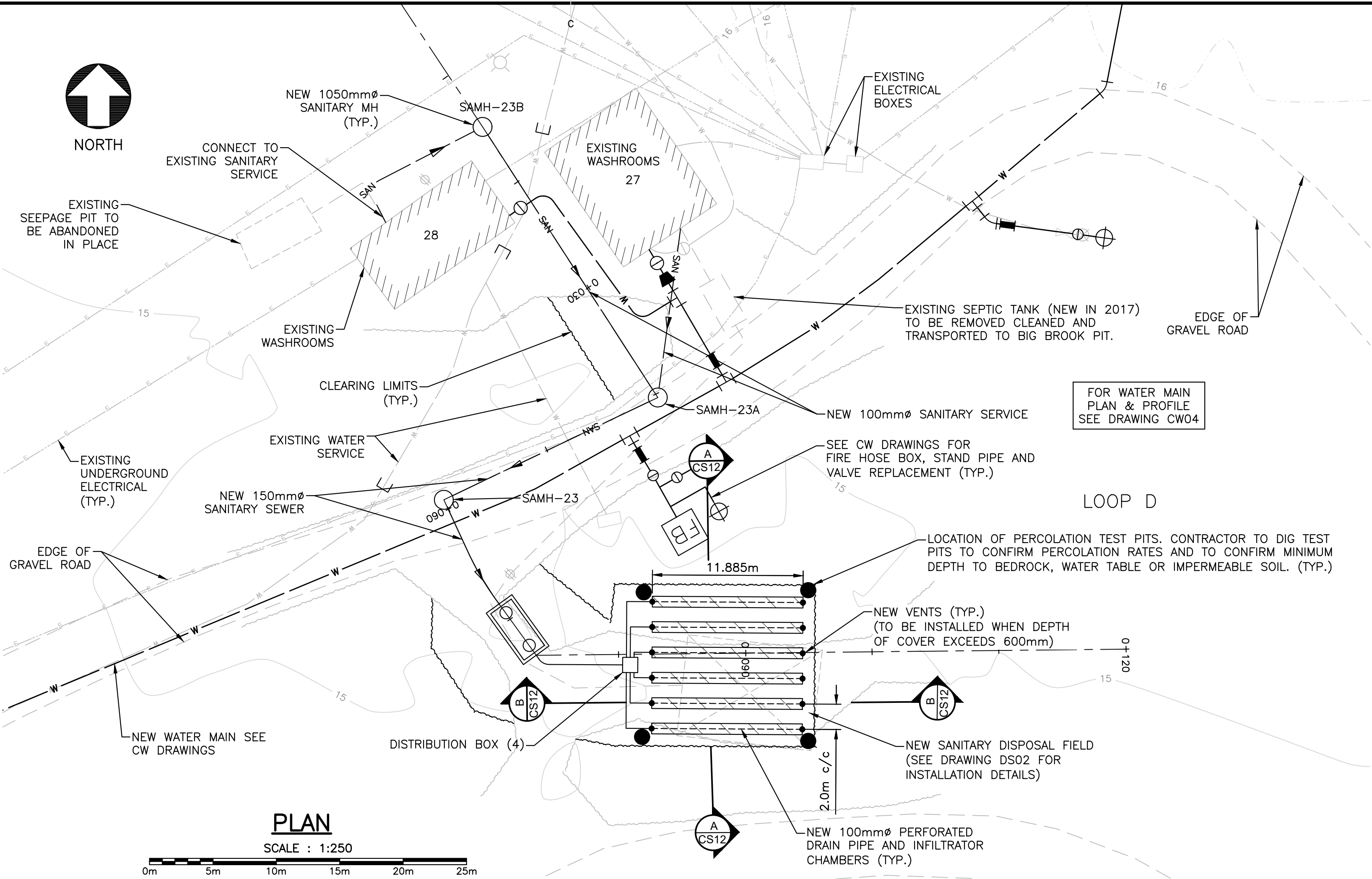
VERTICAL SCALE: 1:50



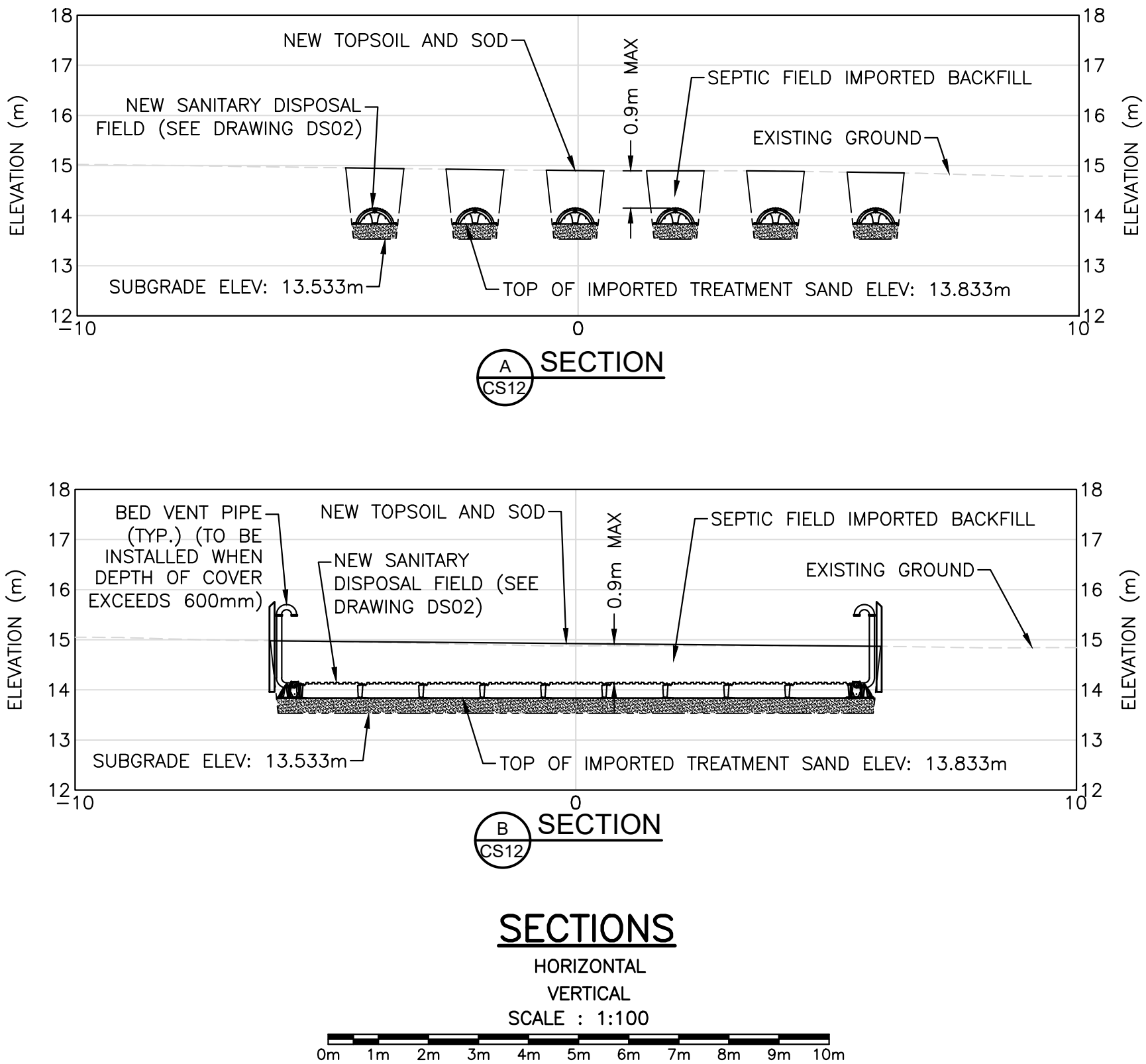
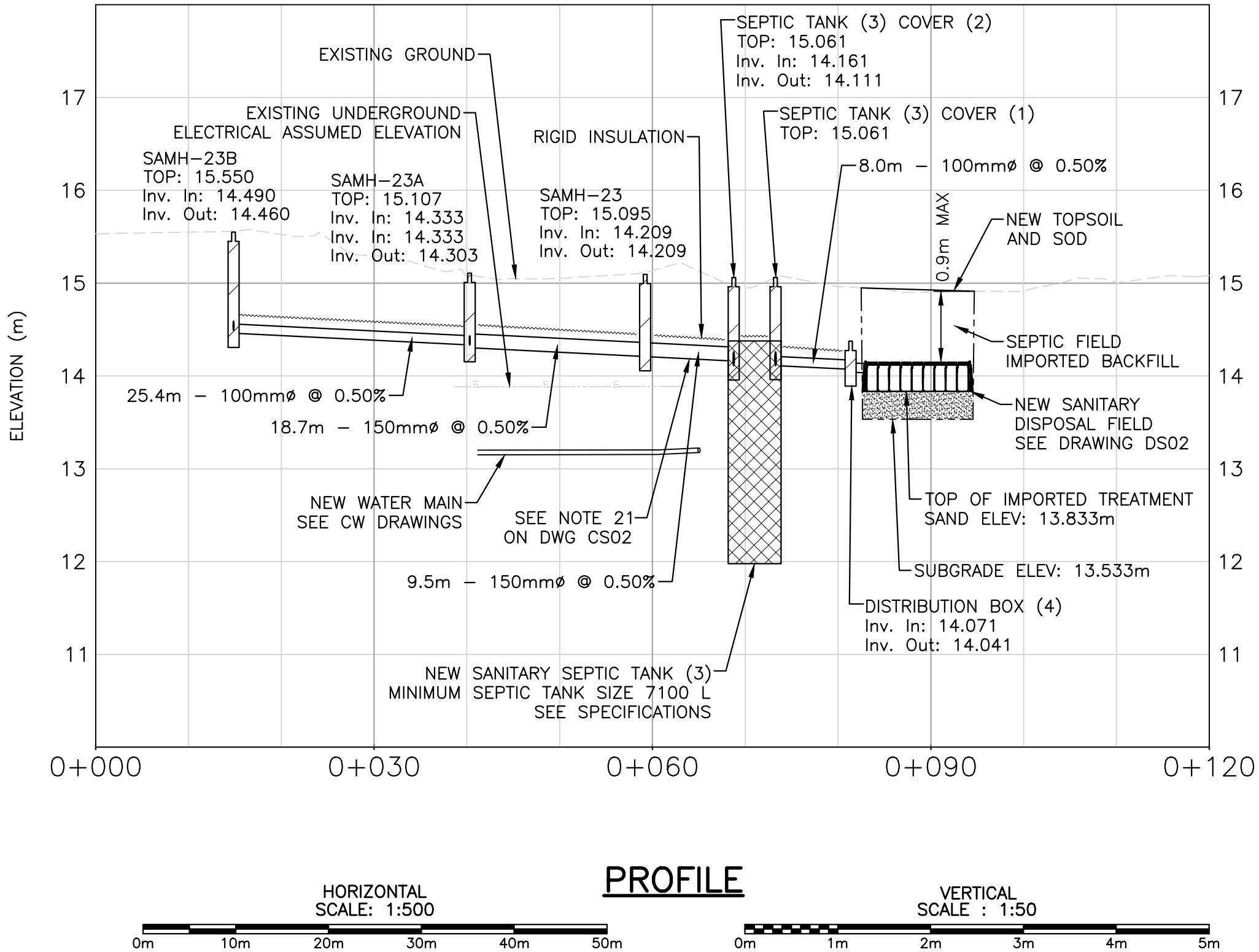
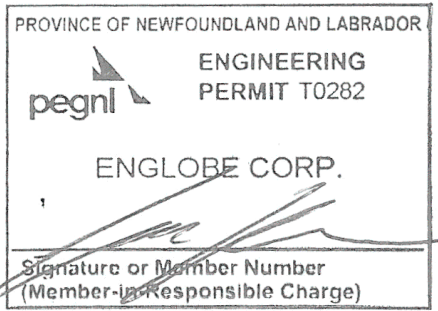
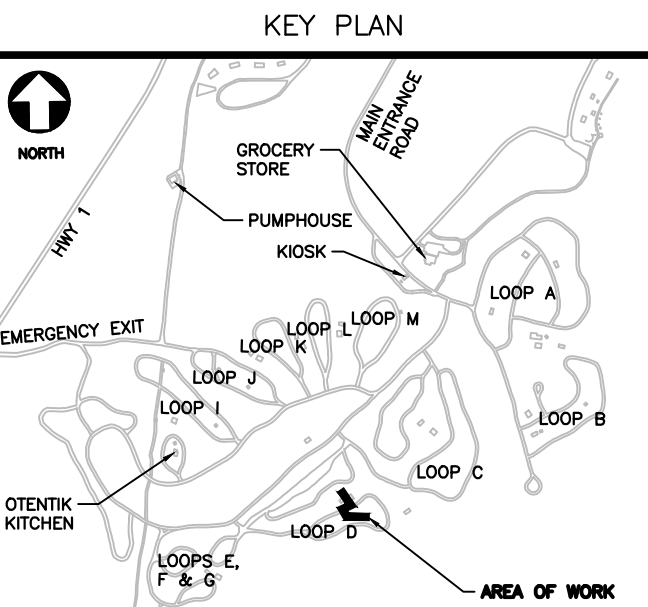


DESIGN CRITERIA	VALUE APPLIED	UNITS/COMMENTS
TYPE OF EFFLUENT	DOMESTIC	FROM WASHROOMS AND COOK SHELTERS
WATER WELL	N/A	
AVERAGE EFFLUENT FLOW	4.73	m <sup>3</sup> /d
PEAK DAILY EFFLUENT FLOW	20	m <sup>3</sup> /d
TANKAGE	7.1	m <sup>3</sup>
EFFLUENT FILTER	YES	
HYDRAULIC RETENTION TIME	1.5	DAYS
EXISTING SOIL INFILTRATION RATE	0.0083	cm/sec.
	7,200	mm/d
TREATMENT CELLS	1	CONCRETE SEPTIC TANK
TREATMENT LEVEL	B I	AS PER CSA STANDARDS
LENGTH OF LINEAR PIPE	71.3	m
LINEAR HYDRAULIC LOADING	66.3	L/(m d);
SEPTIC FIELD AREA	61.6	m <sup>2</sup>
HYDRAULIC FIELD LOADING	76.8	L/(m <sup>2</sup> d);
EFFLUENT BOD <sub>5</sub>	150	mg/L
BOD <sub>5</sub> FIELD LOADING	11521	mg/(m <sup>2</sup> d)

Structure Table			
MANHOLE ID	EASTING	NORTHING	ELEVATION
DISTRIBUTION BOX (4)	280379.035	5380516.356	14.374
SAMH-23	280363.903	5380528.644	15.095
SAMH-23A	280380.779	5380536.713	15.107
SAMH-23B	280366.957	5380558.053	15.550
SEPTIC TANK (3) COVER (1)	280371.044	5380516.585	15.061
SEPTIC TANK (3) COVER (2)	280368.406	5380520.231	15.061



- NOTES:**
- SEE GENERAL NOTES AND LEGEND ON DRAWING CS02.
  - CONTRACTOR TO DEFLECT JOINT NOT MORE THAN MANUFACTURER'S MAX ALLOWABLE DEFLECTION TO FOLLOW SEWER ALIGNMENT. CONTRACTOR TO USE MAX 22.5' LONG SWEEP BENDS AS REQUIRED.
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  - PERFORATED PIPES IN SEPTIC FIELDS SHALL BE INSTALLED AT 0.33% GRADE.
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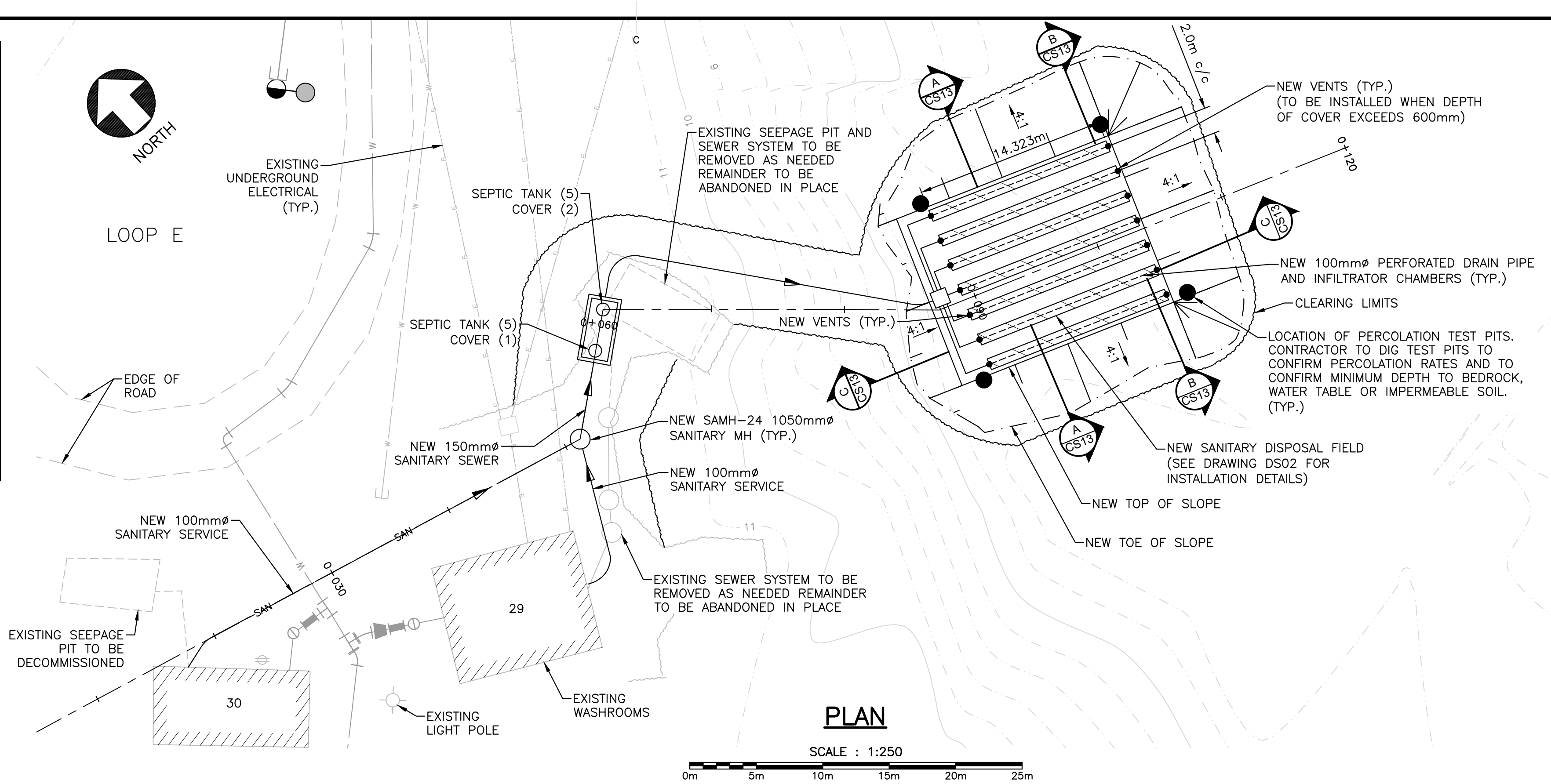


0.0	ISSUED FOR TENDER	05/31 2021
revisions		date
project	TERRA NOVA NATIONAL PARK UTILITY SYSTEMS RECAPITALIZATION PHASE 3	
project		
drawing	BUILDINGS 27 & 28 SEPTIC FIELD PLAN, PROFILE & CROSS SECTIONS	
drawing		
designed	A. ST-AMAND	conçu
date	2021-02-26	
drawn	A. ST-AMAND	dessiné
date	2021-02-26	
approved	A. MELANSON	approuvé
date	2021-02-26	
Tender	Soumission	
PCA Project Manager	Administrateur de projets APC	
project number	1716	
project number		
drawing no.	CS12	
drawing no.		

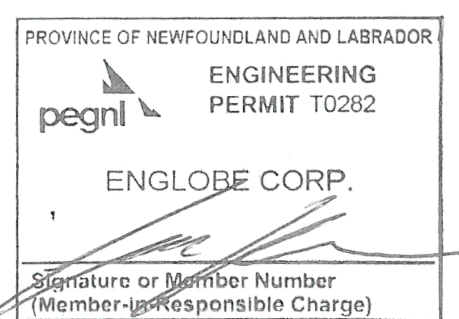
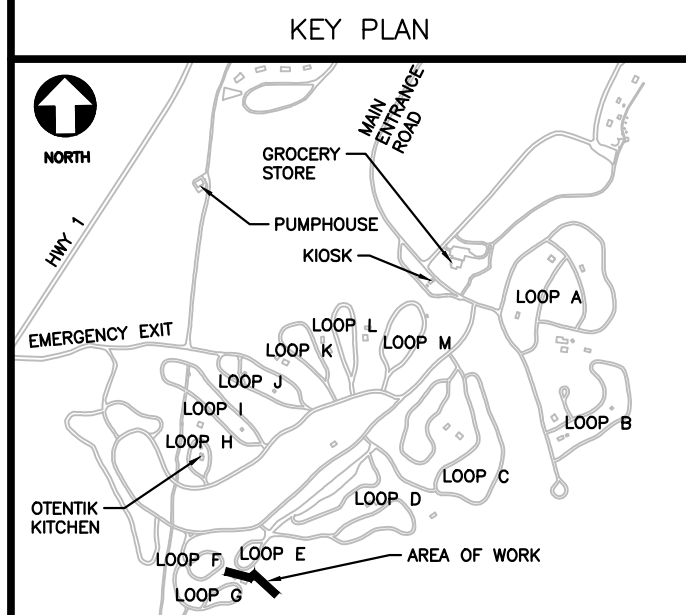


DESIGN CRITERIA	VALUE APPLIED	UNITS/COMMENTS
TYPE OF EFFLUENT	DOMESTIC	FROM WASHROOMS AND COOK SHELTERS
WATER WELL	N/A	
AVERAGE EFFLUENT FLOW	6.75	m <sup>3</sup> /d
PEAK DAILY EFFLUENT FLOW	28	m <sup>3</sup> /d
TANKAGE	10.13	m <sup>3</sup>
EFFLUENT FILTER	YES	
HYDRAULIC RETENTION TIME	1.5	DAYS
EXISTING SOIL INFILTRATION RATE	0.0083	cm/sec.
	7,200	mm/d
TREATMENT CELLS	1	CONCRETE SEPTIC TANK
TREATMENT LEVEL	B I	AS PER CSA STANDARDS
LENGTH OF LINEAR PIPE	100.3	m
LINEAR HYDRAULIC LOADING	67.3	L/(m d);
SEPTIC FILED AREA	200.5	m <sup>2</sup>
HYDRAULIC FIELD LOADING	33.7	L/(m <sup>2</sup> d);
EFFLUENT BOD <sub>5</sub>	150	mg/L
BOD <sub>5</sub> FIELD LOADING	5049	mg/(m <sup>2</sup> d)

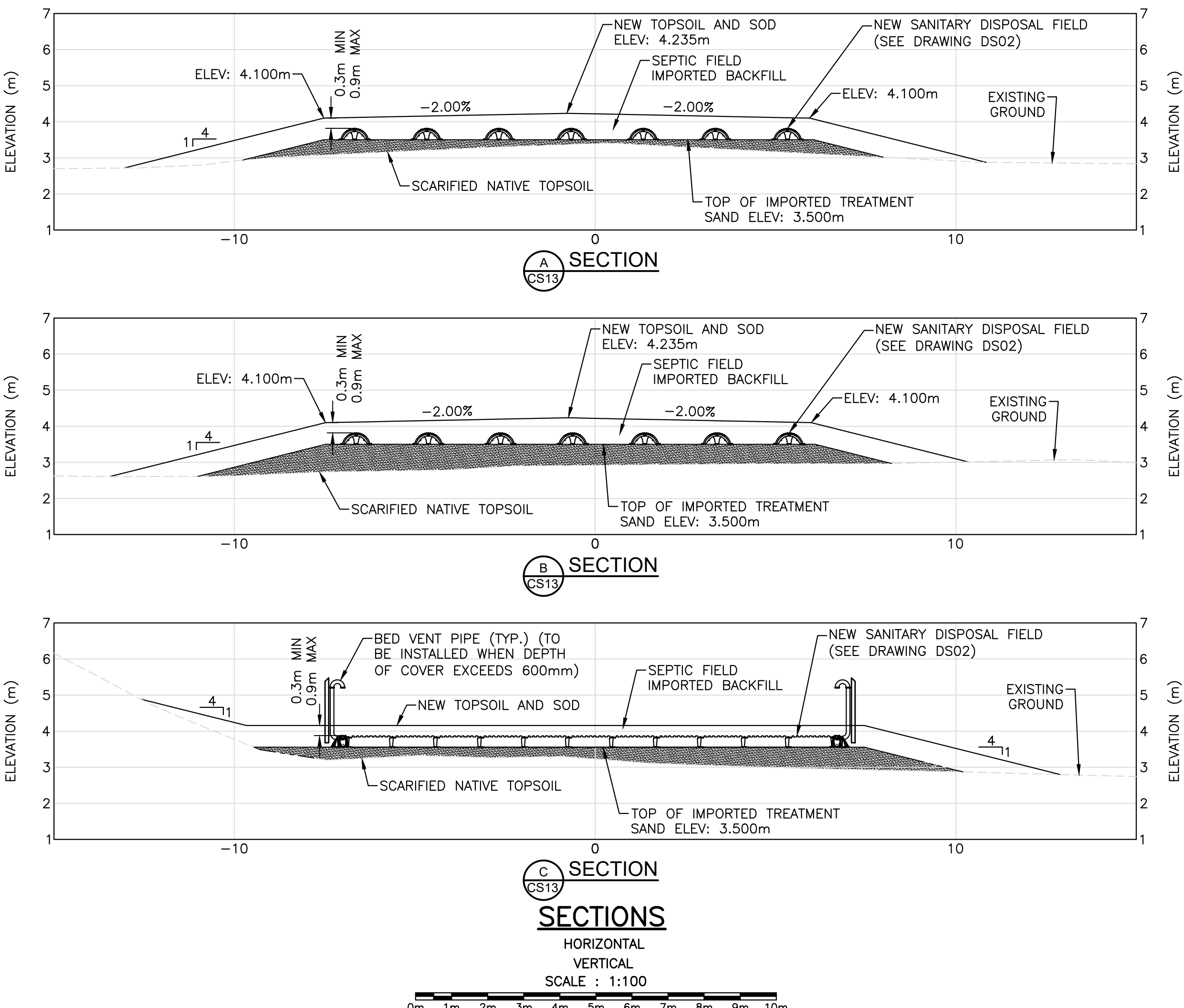
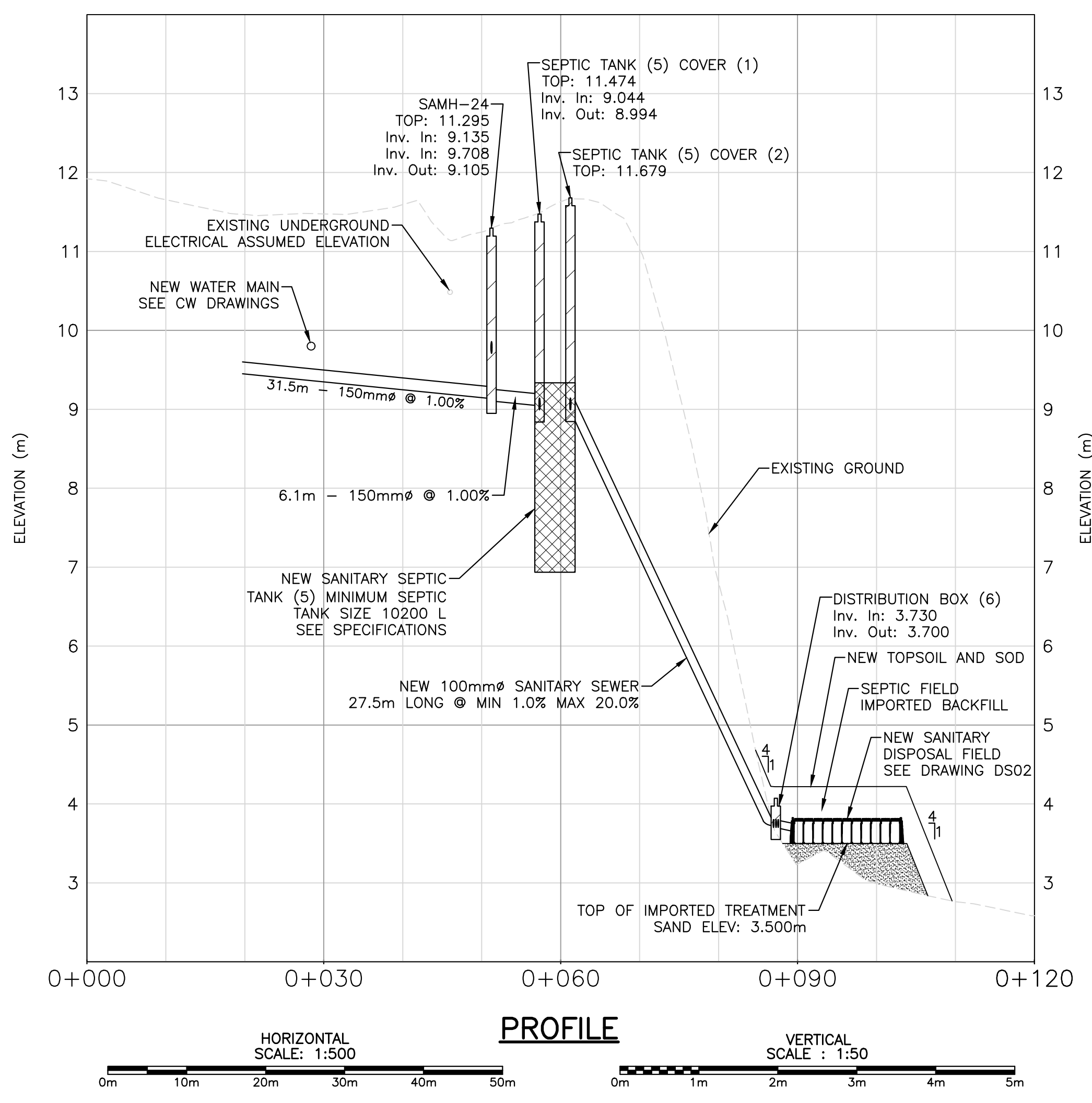
Structure Table			
MANHOLE ID	EASTING	NORTHING	ELEVATION
DISTRIBUTION BOX (6)	280155.399	5380391.719	4.072
SAMH-24	280128.812	5380402.808	11.295
SEPTIC TANK (5) COVER (1)	280133.666	5380406.506	11.474
SEPTIC TANK (5) COVER (2)	280136.535	5380409.458	11.679



- NOTES:
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  - CONTRACTOR TO DEFLECT JOINT NOT MORE THAN MANUFACTURER'S MAX ALLOWABLE DEFLECTION TO FOLLOW SEWER ALIGNMENT. CONTRACTOR TO USE MAX 22.5' LONG SWEEP BENDS AS REQUIRED.
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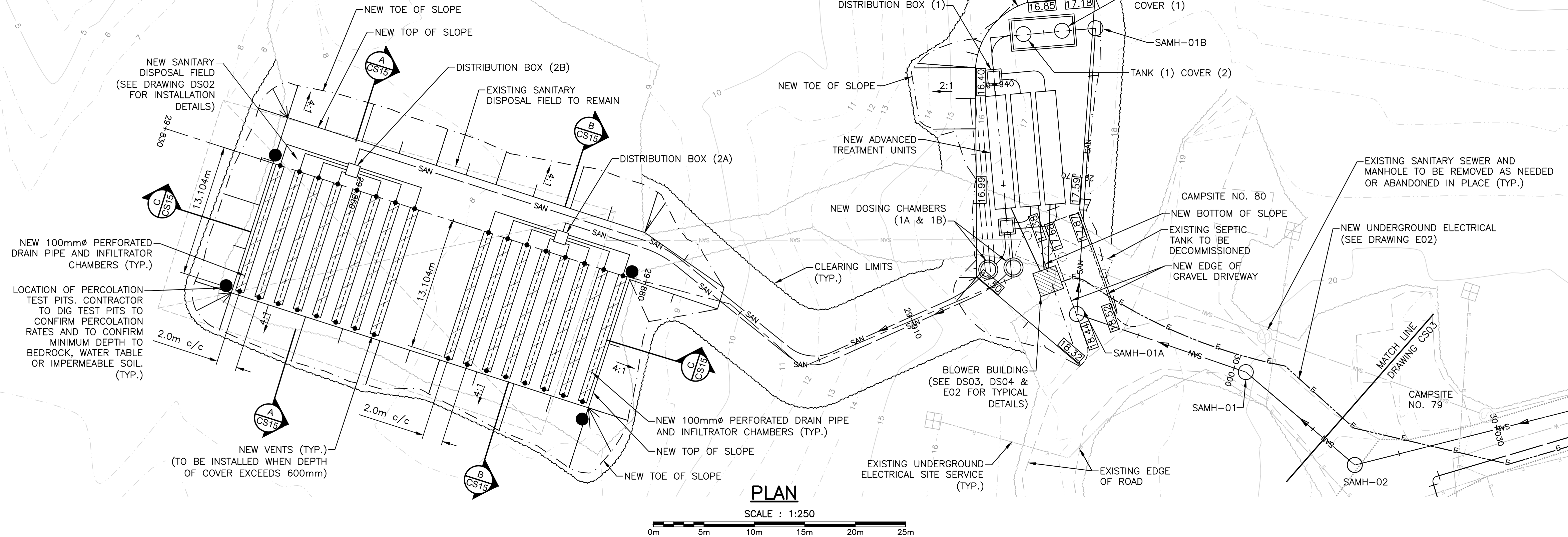
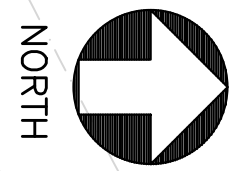
0.0	ISSUED FOR TENDER	05/31 2021
revisions		date
project	TERRA NOVA NATIONAL PARK UTILITY SYSTEMS RECAPITALIZATION PHASE 3	
drawing	BUILDINGS 29 & 30 SEPTIC FIELD PLAN, PROFILE & CROSS SECTIONS	
designed	A. ST-AMAND	conçu
date	2021-02-26	
drawn	A. ST-AMAND	dessiné
date	2021-02-26	
approved	A. MELANSON	approuvé
date	2021-02-26	
Tender		Soumission
PCA Project Manager	Administrateur de projets APC	
project number	1716	no. du projet
drawing no.	CS13	no. du dessin





## NOTES:

1. SEE GENERAL NOTES AND LEGEND ON DRAWING CS02.
2. CONTRACTOR TO DEFLECT JOINT NOT MORE THAN MANUFACTURER'S MAX ALLOWABLE DEFLECTION TO FOLLOW SEWER ALIGNMENT. CONTRACTOR TO USE MAX 22.5' LONG SWEEP BENDS AS REQUIRED.
3. SEPTIC SYSTEMS SHALL BE INSTALLED BY CERTIFIED AND LICENSED INSTALLERS WHO COMPLY WITH LOCAL AUTHORITY HAVING JURISDICTION.
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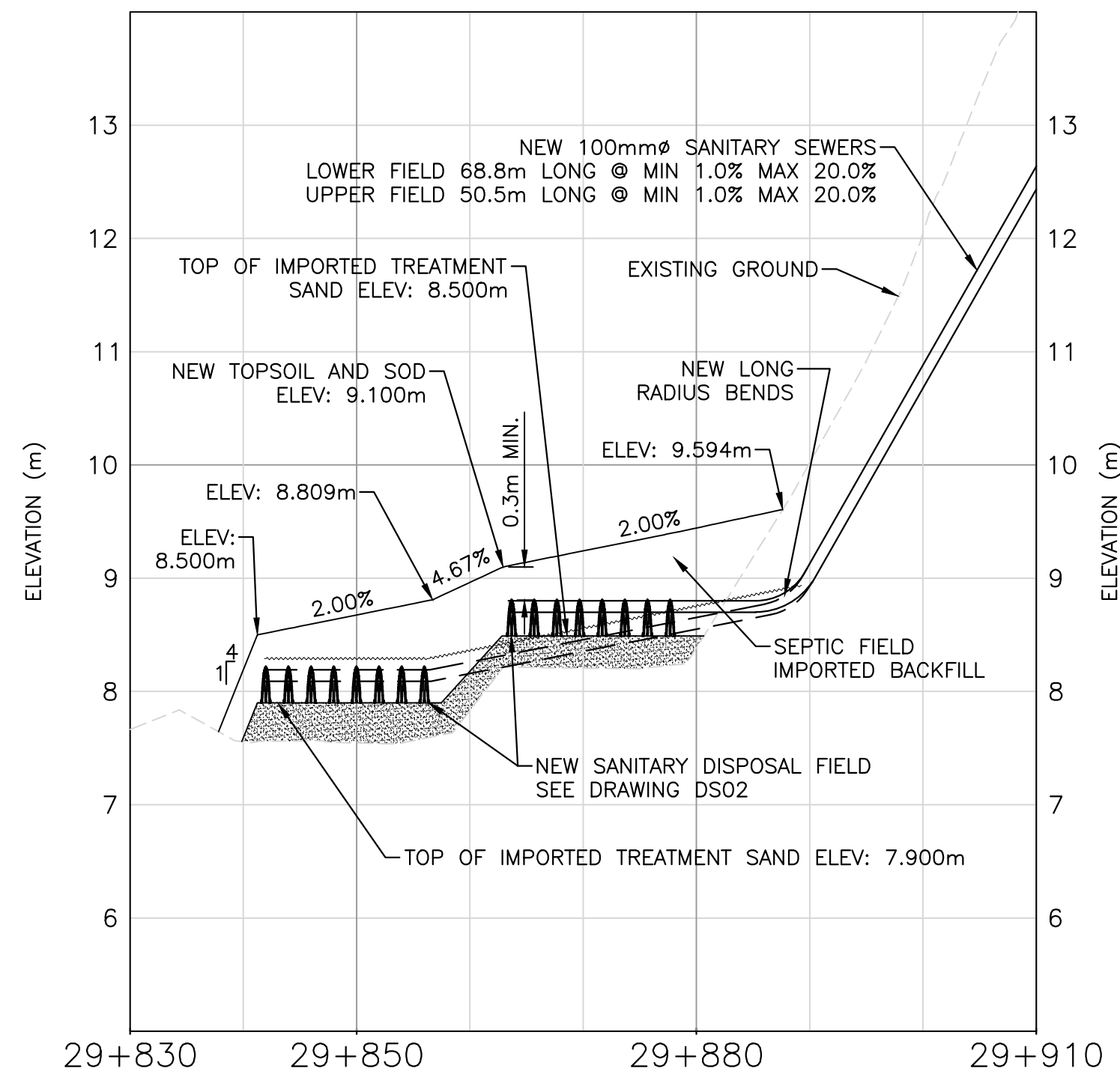
## PLAN

SCALE : 1:250



Structure Table			
MANHOLE ID	EASTING	NORTHING	ELEVATION
DISTRIBUTION BOX (1)	280700.516	5380557.010	15.450
DISTRIBUTION BOX (2)	280715.311	5380558.309	15.344
DOSING CHAMBER (1)	280719.891	5380557.883	17.542
SAMH-01	280730.250	5380582.026	19.905
SAMH-01A	280724.492	5380565.282	18.275
SAMH-01B	280696.161	5380567.114	17.385
SAMH-02	280739.463	5380592.822	21.160
TANK (1) COVER (1)	280696.837	5380558.856	16.767
TANK (1) COVER (2)	280696.324	5380565.121	17.162

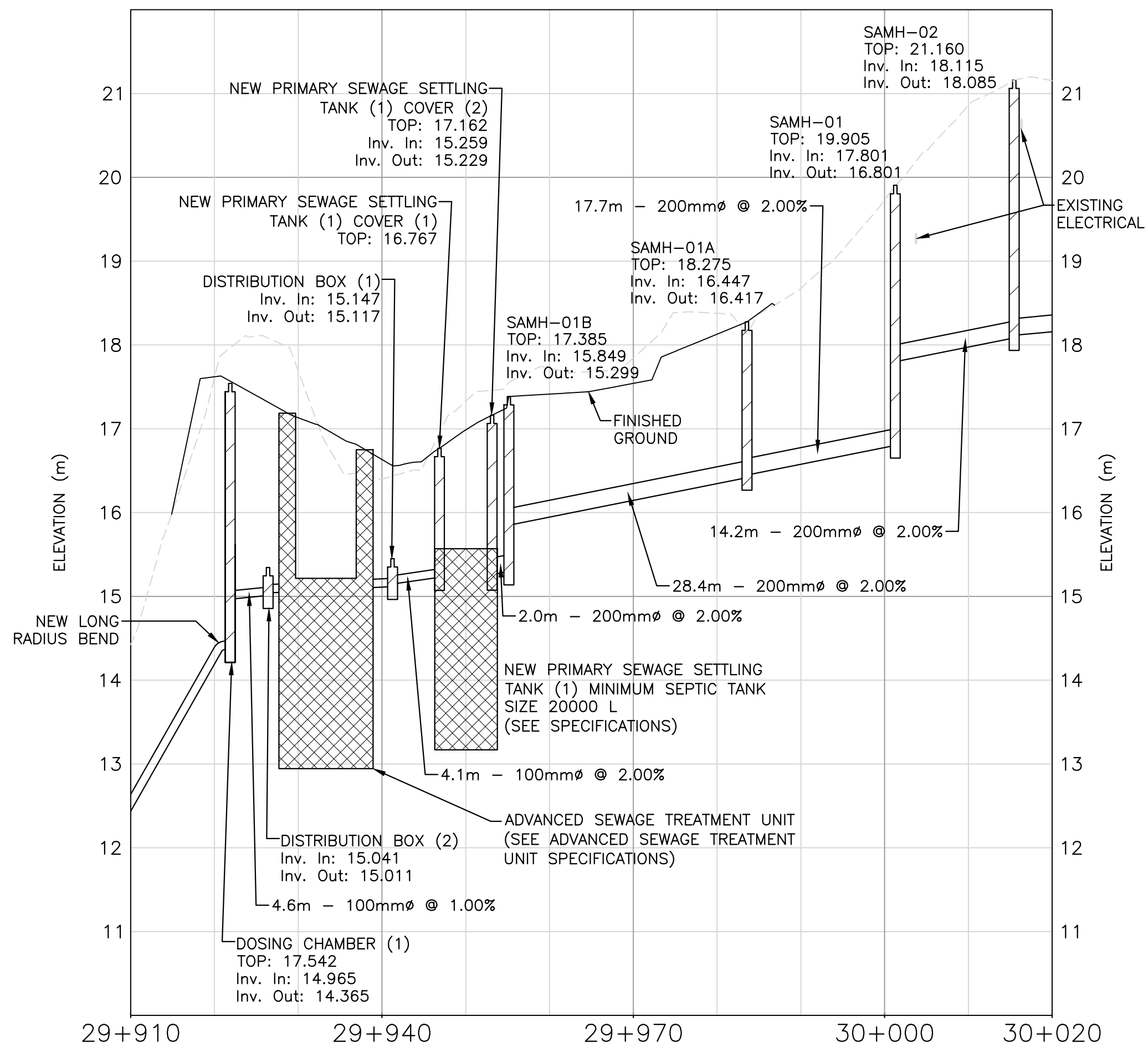
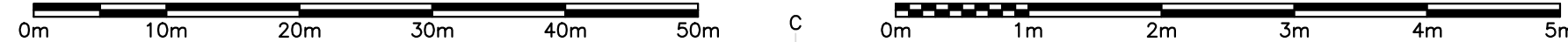
DESIGN CRITERIA	VALUE APPLIED	UNITS/COMMENTS
TYPE OF EFFLUENT	DOMESTIC	FROM WASHROOMS AND COOK SHELTERS
WATER WELL	N/A	
AVERAGE EFFLUENT FLOW	53.57	m <sup>3</sup> /d
PEAK DAILY EFFLUENT FLOW	200.6	m <sup>3</sup> /d
TANKAGE	20.09	m <sup>3</sup>
EFFLUENT FILTER	NONE REQUIRED	
HYDRAULIC RETENTION TIME	0.38	DAYS
EXISTING SOIL INFILTRATION RATE	0.0083	cm/sec.
	7,200	mm/d
TREATMENT CELLS	3	FUJI CLEAN C68KG OR APPROVED EQUAL
TREATMENT LEVEL	BETTER THAN B II	AS PER CSA STANDARDS
LENGTH OF LINEAR PIPE	209.7	m
LINEAR HYDRAULIC LOADING	255.5	L/(m d);
SEPTIC FIELD AREA	419.3	m <sup>2</sup>
HYDRAULIC FIELD LOADING	127.8	L/(m <sup>2</sup> d);
EFFLUENT BOD <sub>5</sub>	20	mg/L
BOD <sub>5</sub> FIELD LOADING	2555	mg/(m <sup>2</sup> d)



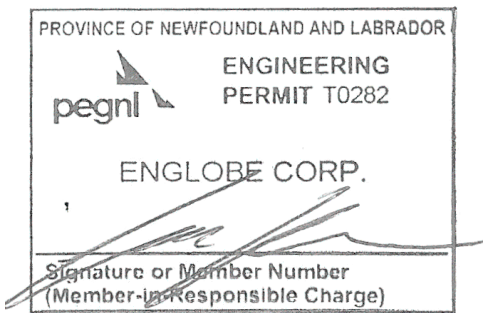
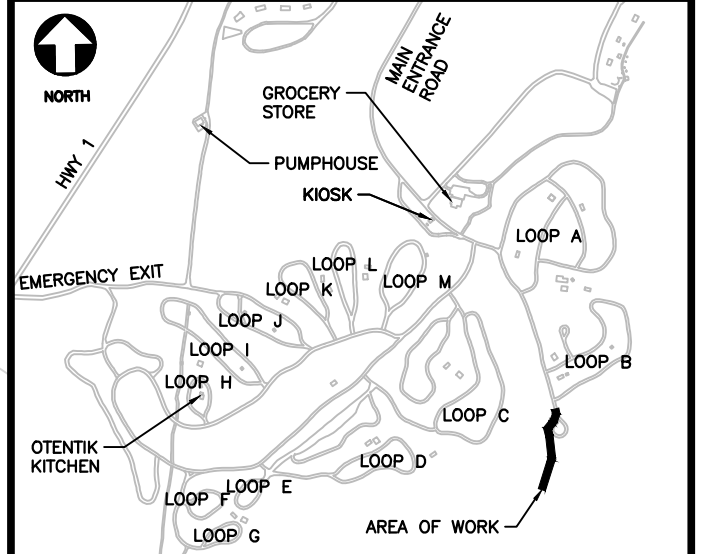
## PROFILES

HORIZONTAL SCALE: 1:500

VERTICAL SCALE: 1:50



## KEY PLAN



0.0	ISSUED FOR TENDER	05/31 2021
revisions		date

project TERRA NOVA NATIONAL PARK UTILITY SYSTEMS RECAPITALIZATION PHASE 3

TERRA NOVA NATIONAL PARK

drawing dessin

## LOOP A-B SEPTIC FIELD PLAN &amp; PROFILES

designed	A. ST-AMAND	conçu
date	2021-02-26	
drawn	A. ST-AMAND	dessiné
date	2021-02-26	
approved	A. MELANSON	approuvé
date	2021-02-26	
Tender		Soumission

PCA Project Manager Administrateur de projets APC

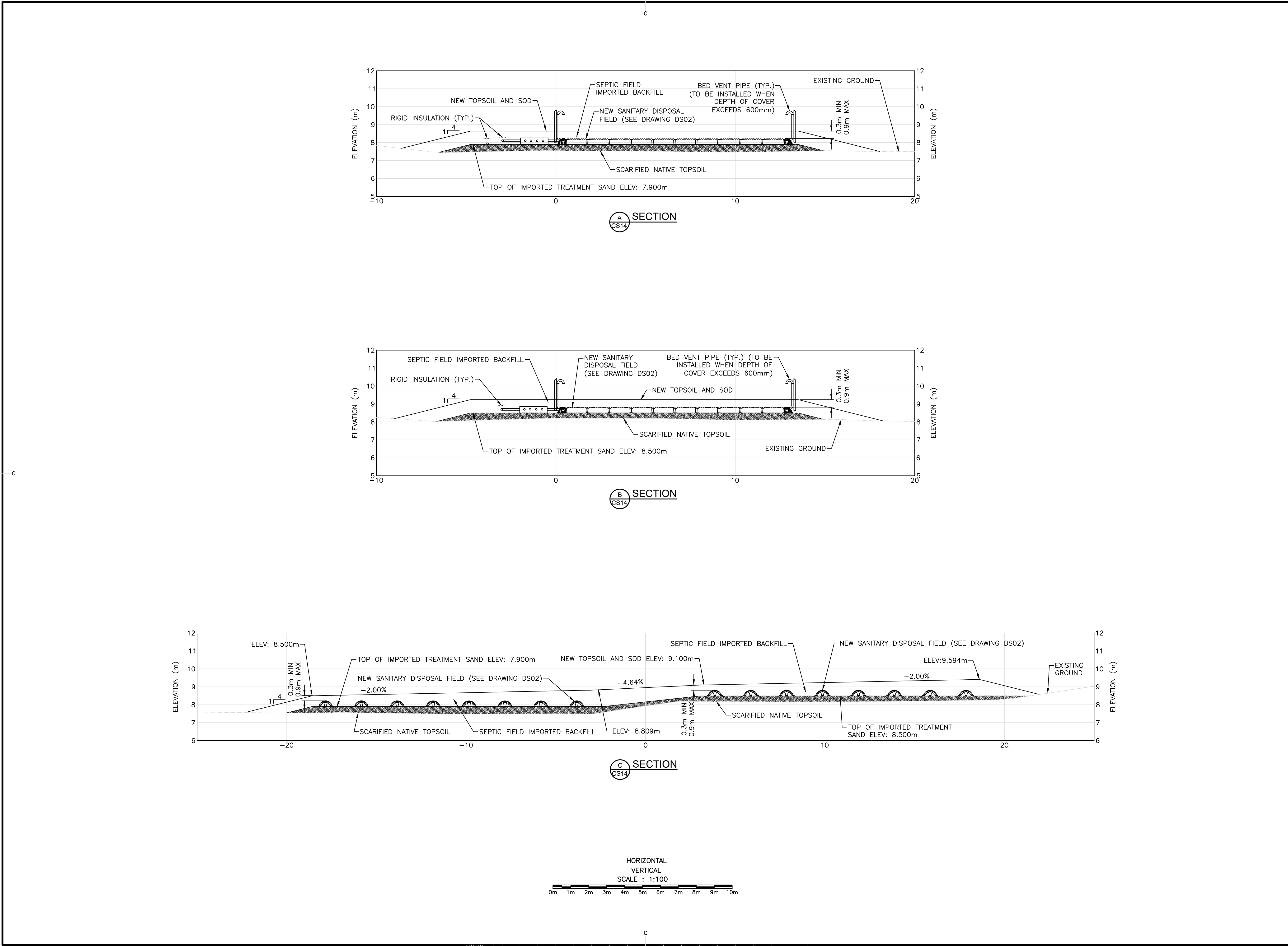
project number no. du projet


1716

drawing no. no. du dessin


CS14









Parks Canada



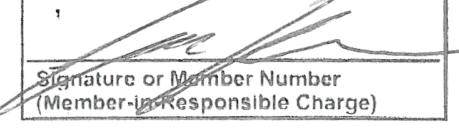
Parcs Canada




PROVINCE OF NEWFOUNDLAND AND LABRADOR

 ENGINEERING PERMIT T0282

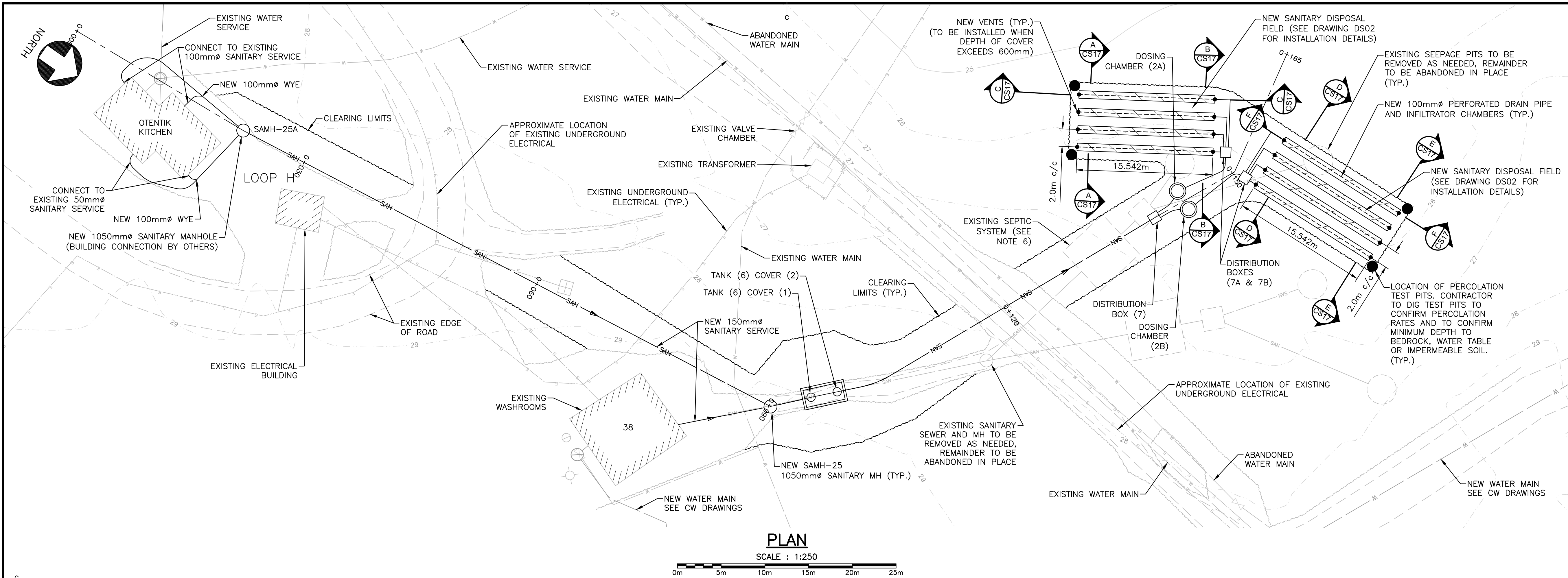
ENGLOBE CORP.

  
Signature or Member Number  
(Member-responsible Charge)

  
08260  
Julien Babin  
ENGINEER  
2021-06-03  
NEWFOUNDLAND & LABRADOR

0.0	ISSUED FOR TENDER	05/31 2021
revisions		date
project	TERRA NOVA NATIONAL PARK UTILITY SYSTEMS RECAPITALIZATION PHASE 3	
drawing	dessin	
TERRA NOVA NATIONAL PARK		
LOOP A-B SEPTIC FIELD CROSS SECTIONS		
designed	A. ST-AMAND	conçu
date	2021-02-26	
drawn	A. ST-AMAND	dessiné
date	2021-02-26	
approved	A. MELANSON	approuvé
date	2021-02-26	
Tender	Soumission	
PCA Project Manager	Administrateur de projets APC	
project number	no. du projet	
1716		
drawing no.	no. du dessin	
CS15		



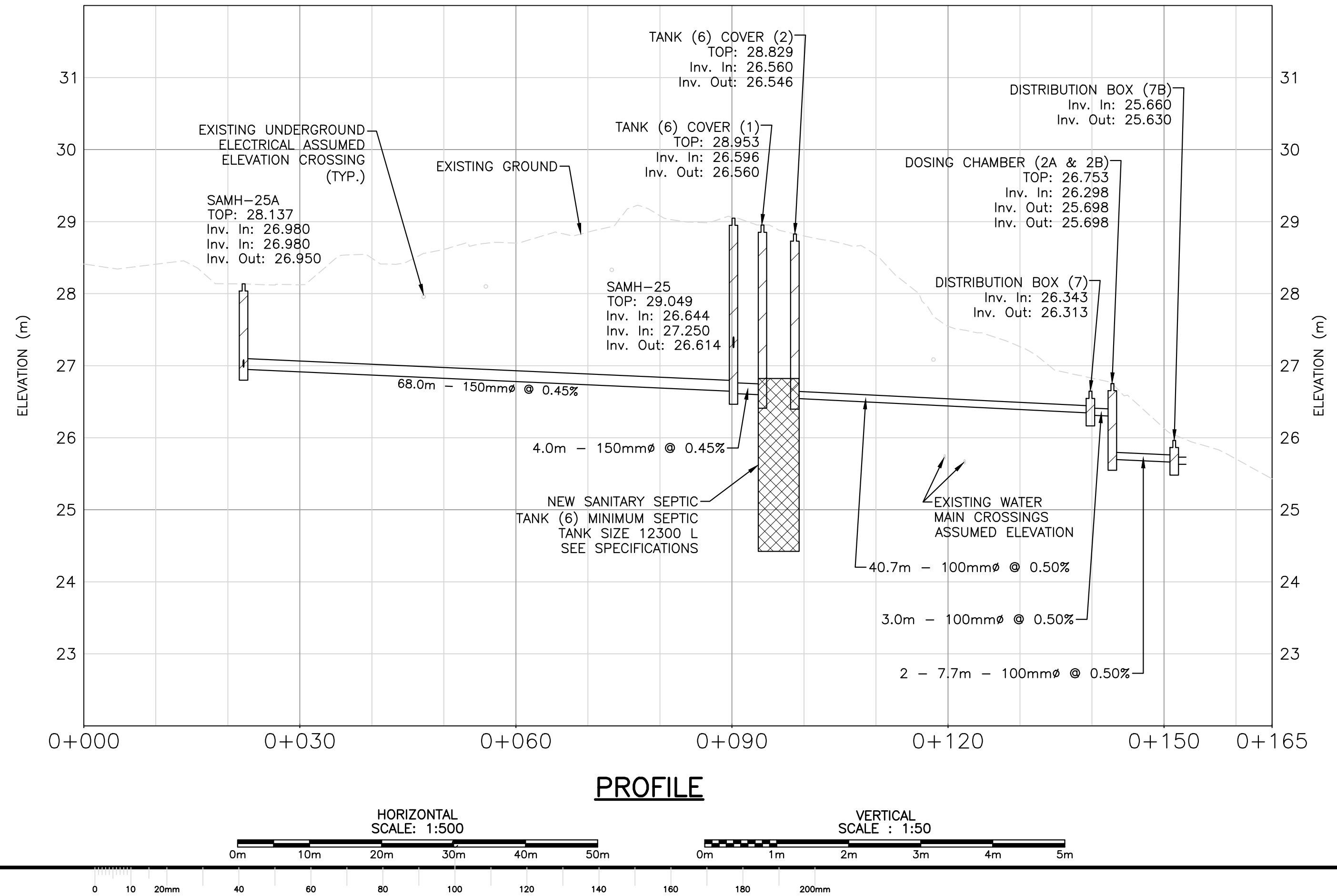


KEY PLAN

0.0	ISSUED FOR TENDER	05/31 2021
revisions		date
project	TERRA NOVA NATIONAL PARK	
drawing	dessin	
OTENTIK & BUILDING 38 SEPTIC FIELD PLAN & PROFILE		
designed	A. ST-AMAND	conçu
date	2021-02-26	
drawn	A. ST-AMAND	dessiné
date	2021-02-26	
approved	A. MELANSON	approuvé
date	2021-02-26	
Tender	Soumission	
PCA Project Manager	Administrateur de projets APC	
project number	1716	
drawing no.	no. du dessin	
CS16		

Structure Table			
MANHOLE ID	EASTING	NORTHING	ELEVATION
DISTRIBUTION BOX (7)	279975.044	5380742.449	26.646
DISTRIBUTION BOX (7A)	279965.953	5380748.342	26.106
DISTRIBUTION BOX (7B)	279964.737	5380745.141	25.964
DOSING CHAMBER (2A & 2B)	279972.242	5380743.650	26.753
SAMH-25	280017.900	5380718.868	29.049
SAMH-25A	280026.623	5380651.394	28.137
TANK (6) COVER (1)	280014.943	5380721.592	28.953
TANK (6) COVER (2)	280011.638	5380724.645	28.829

DESIGN CRITERIA	VALUE APPLIED	UNITS/COMMENTS
TYPE OF EFFLUENT	DOMESTIC	FROM WASHROOMS AND COOK SHELTERS
WATER WELL	N/A	
AVERAGE EFFLUENT FLOW	8.2	m <sup>3</sup> /d
PEAK DAILY EFFLUENT FLOW	50.3	m <sup>3</sup> /d
TANKAGE	12.3	m <sup>3</sup>
EFFLUENT FILTER	YES	
HYDRAULIC RETENTION TIME	1.5	DAYS
EXISTING SOIL INFILTRATION RATE	0.0083	cm/sec.
	7,200	mm/d
TREATMENT CELLS	1	CONCRETE SEPTIC TANK
TREATMENT LEVEL	8 1	AS PER CSA STANDARDS
LENGTH OF LINEAR PIPE	124.3	m
LINEAR HYDRAULIC LOADING	66.0	L/(m d);
SEPTIC FIELD AREA	107.4	m <sup>2</sup>
HYDRAULIC FIELD LOADING	76.4	L/(m <sup>2</sup> d);
EFFLUENT BOD <sub>5</sub>	150	mg/L
BOD <sub>5</sub> FIELD LOADING	11455	mg/(m <sup>2</sup> d)



- NOTES:
- SEE GENERAL NOTES AND LEGEND ON DRAWING CS02.
  - CONTRACTOR TO DEFLECT JOINT NOT MORE THAN MANUFACTURER'S MAX ALLOWABLE DEFLECTION TO FOLLOW SEWER ALIGNMENT. CONTRACTOR TO USE MAX 22.5' LONG SWEEP BENDS AS REQUIRED.
  - SEPTIC SYSTEMS SHALL BE INSTALLED BY CERTIFIED AND LICENSED INSTALLERS WHO COMPLY WITH LOCAL AUTHORITY HAVING JURISDICTION.
  - IN LOCATIONS WHERE NEW UTILITIES GO THROUGH TREED AREAS, THE CONTRACTOR WILL BE REQUIRED TO USE SMALLER EQUIPMENT AND TRENCH BOXES AS NEEDED TO AVOID AND/OR MINIMIZE THE IMPACT TO THE NATURAL ENVIRONMENT.
  - PERFORATED PIPES IN SEPTIC FIELDS SHALL BE INSTALLED AT 0.33% GRADE.
  - EXISTING SEPTIC TANKS AND FIELDS TO BE REMOVED IF WITHIN THE LIMITS OF WORK. IF THEY ARE OUTSIDE THE LIMITS OF WORK THEY SHALL BE ABANDONED IN PLACE. SEPTIC TANKS AND FIELDS REMOVED SHALL BE BACKFILLED WITH CLEAN APPROVED BACKFILL TO UNDERSIDE OF NEW BEDDING OR SEPTIC FIELD.



0.0	ISSUED FOR TENDER	05/31 2021
revisions		date

project	<b>TERRA NOVA NATIONAL PARK UTILITY SYSTEMS RECAPITALIZATION PHASE 3</b>	projet
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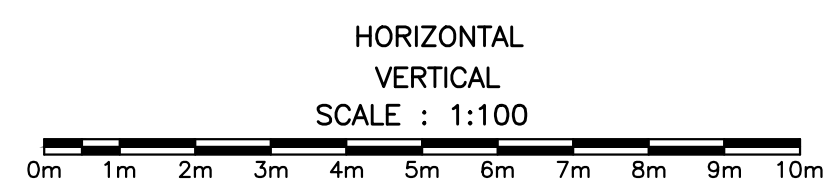
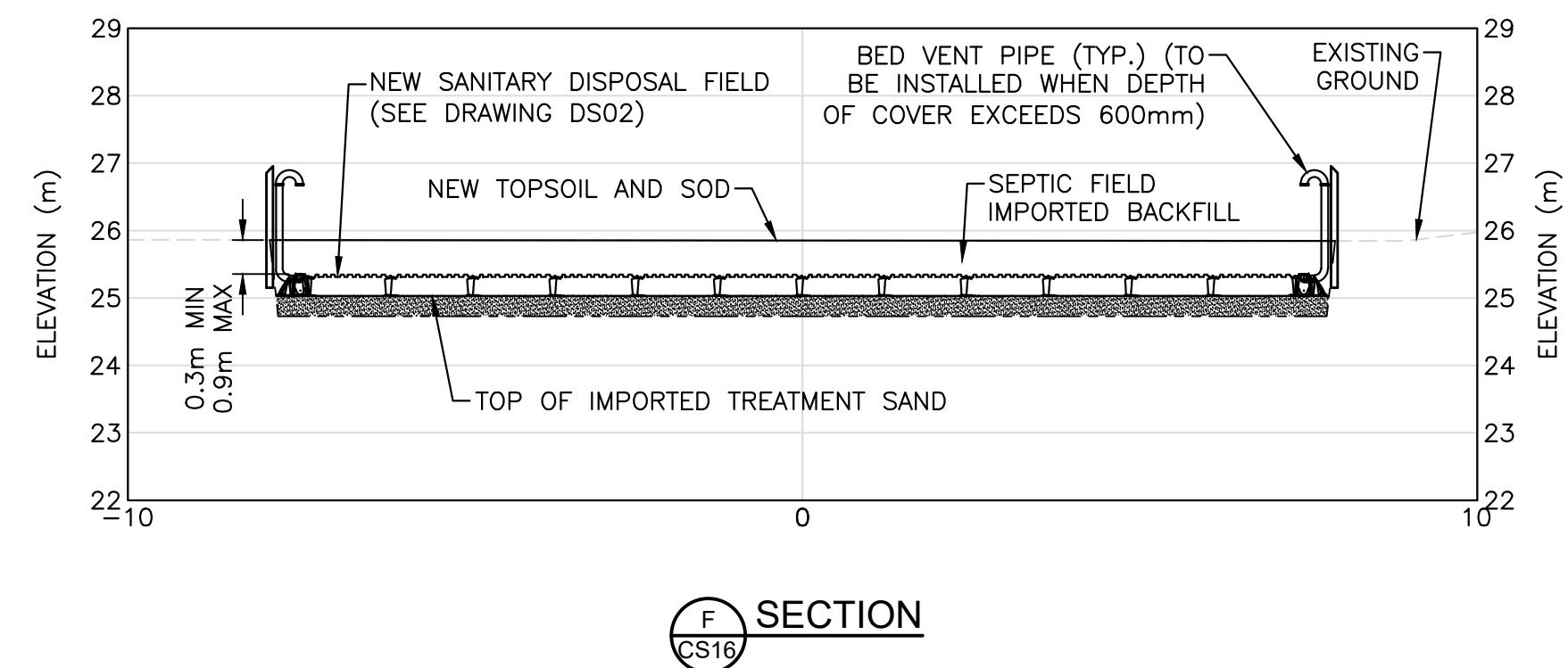
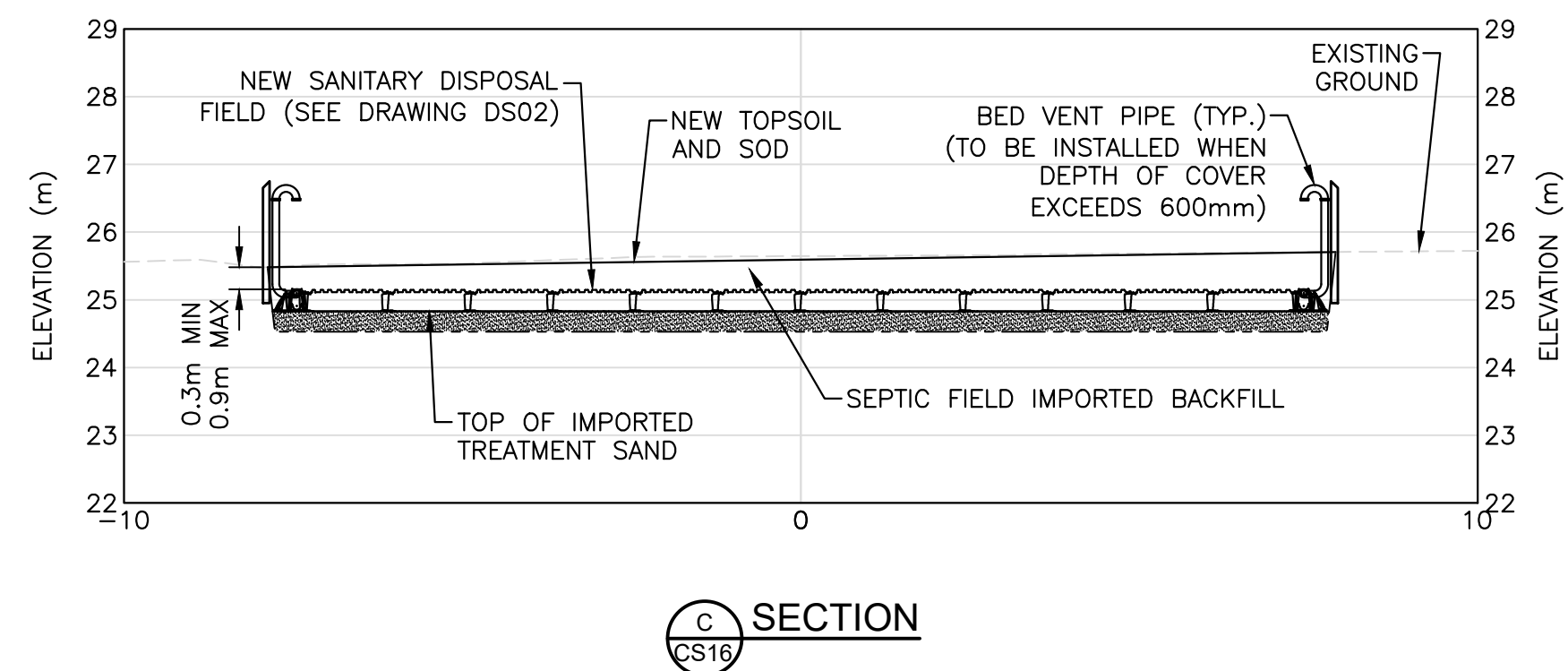
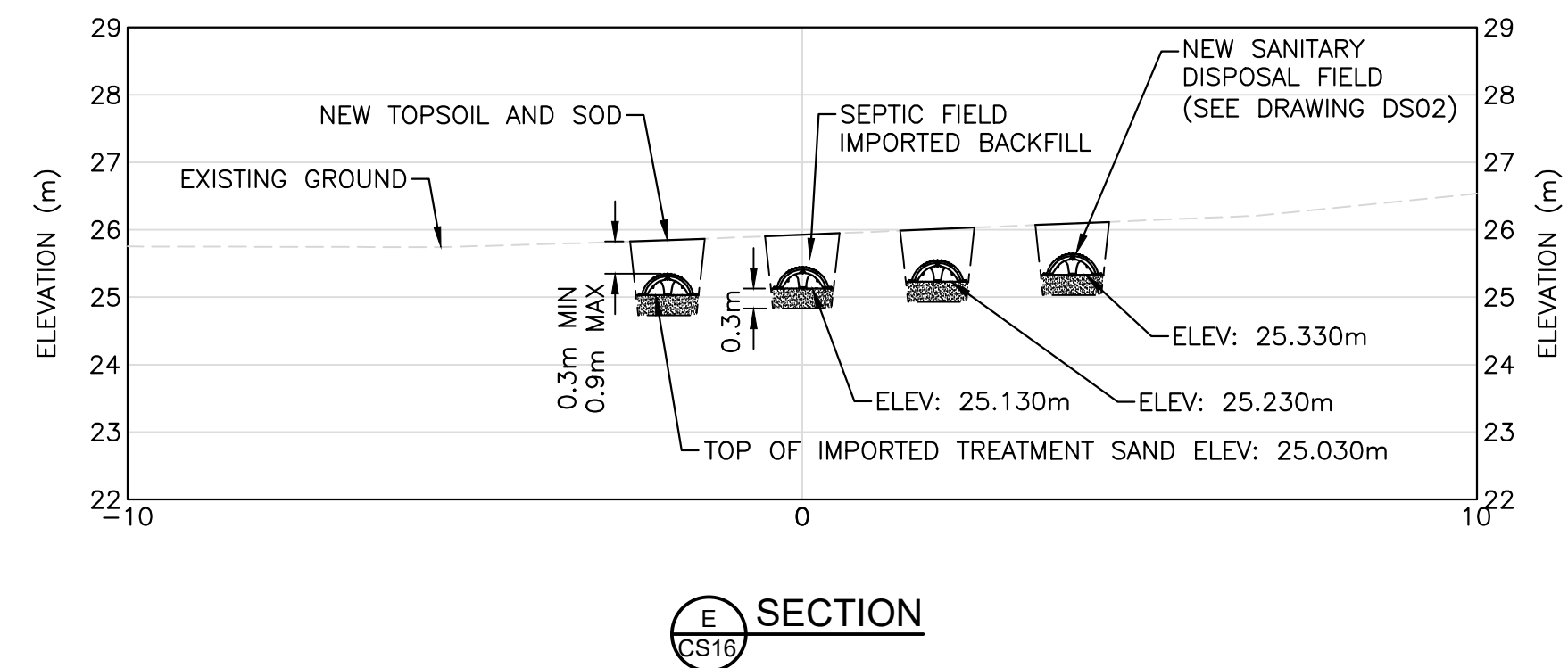
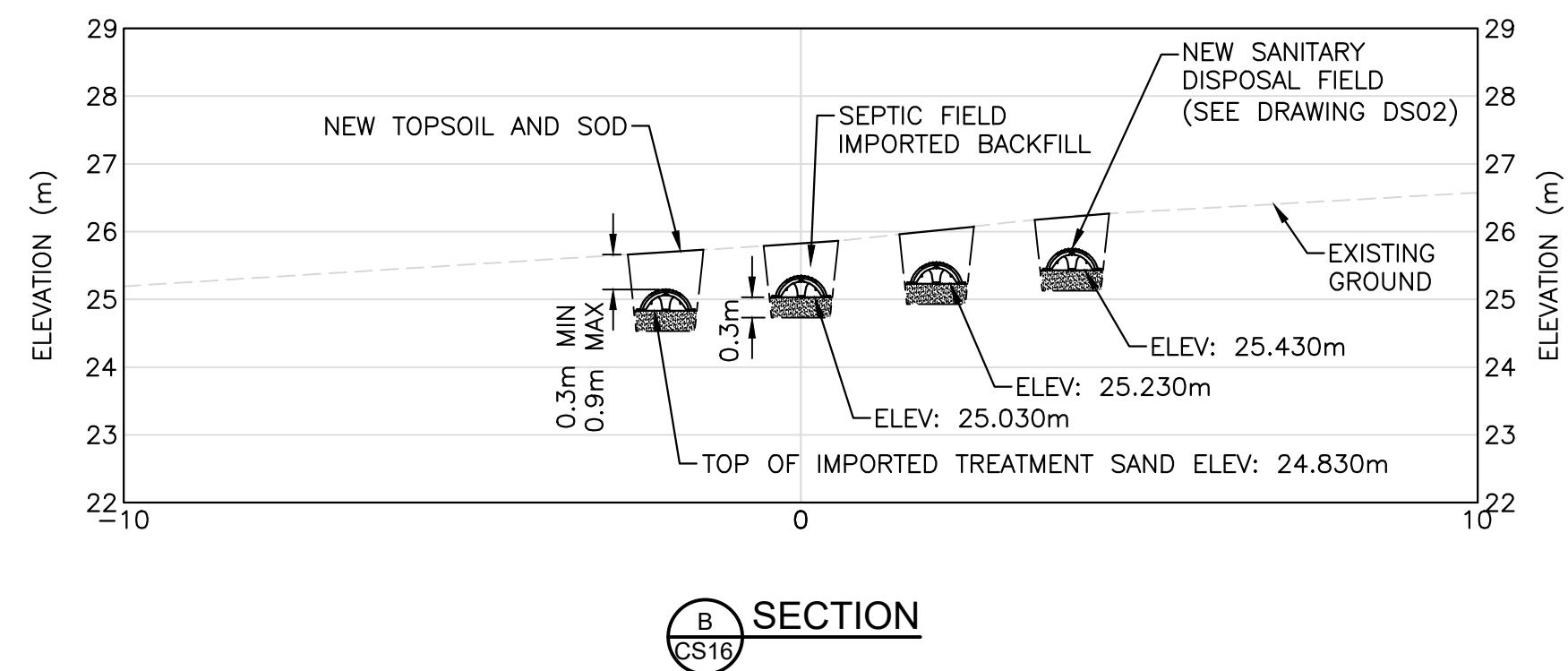
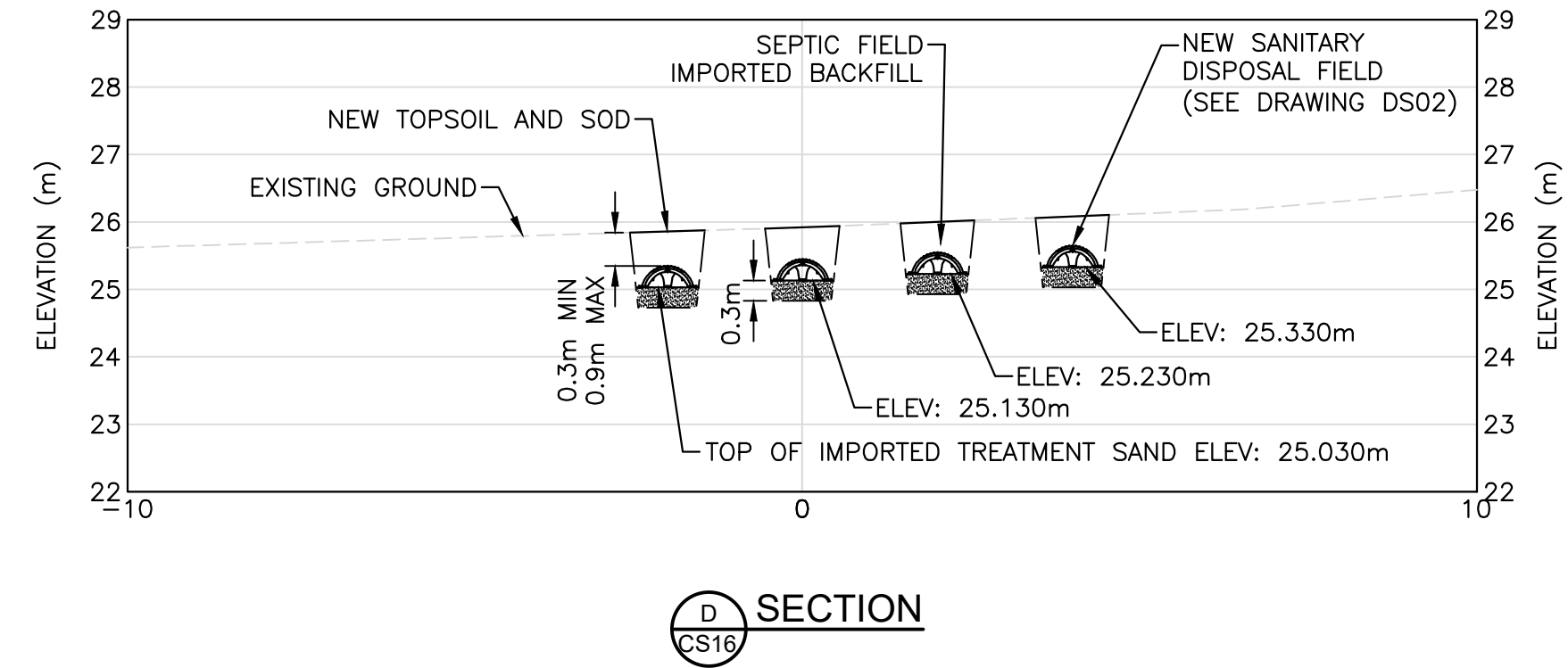
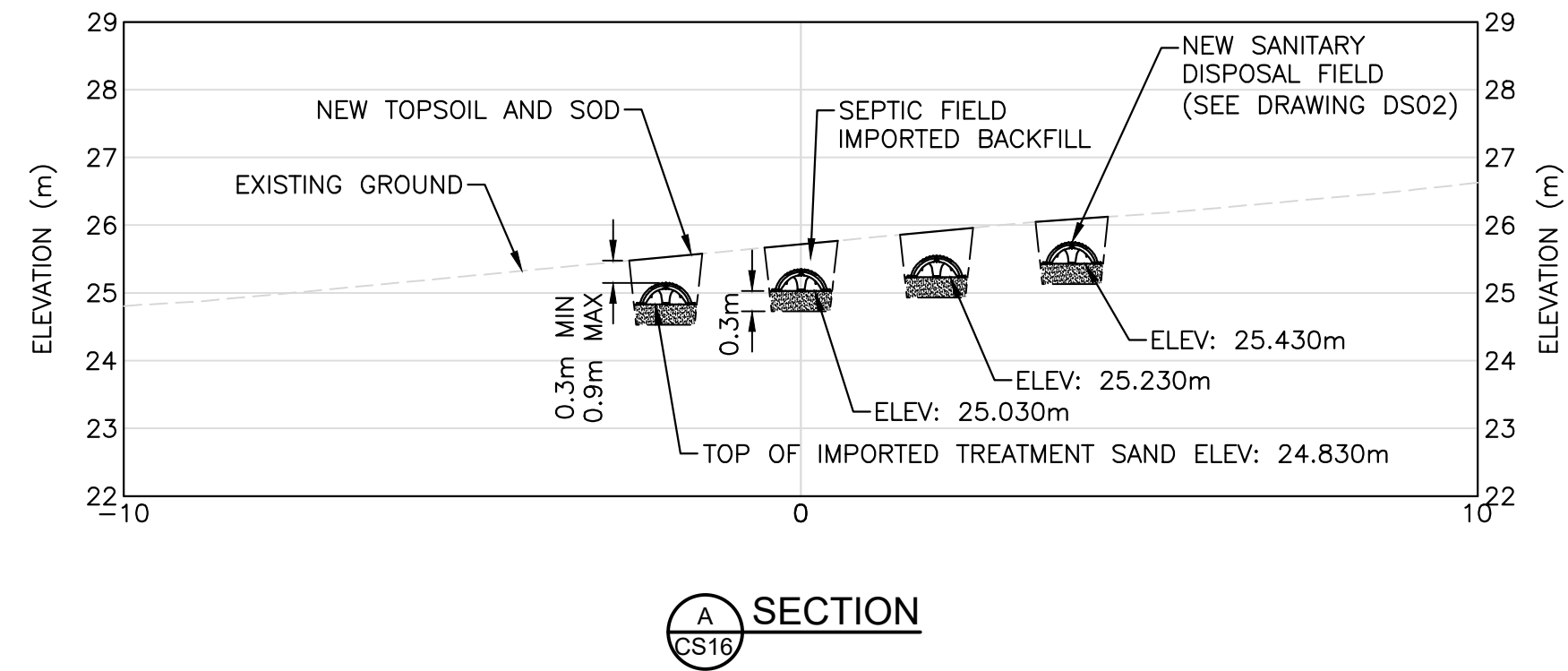
drawing	TERRA NOVA NATIONAL PARK	dessin
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<b>OTENTIK &amp; BUILDING 38 SEPTIC FIELD CROSS SECTIONS</b>		
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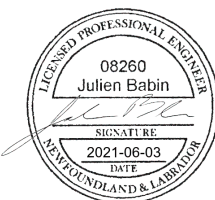
designed	A. ST-AMAND	conçu
date	2021-02-26	
drawn	A. ST-AMAND	dessiné
date	2021-02-26	
approved	A. MELANSON	approuvé
date	2021-02-26	
Tender		Soumission

PCA Project Manager	Administrateur de projets APC
project number	no. du projet
<b>1716</b>	

drawing no.	no. du dessin
<b>CS17</b>	







0.0	ISSUED FOR TENDER	05/31 2021
revisions		date
project	<p><b>TERRA NOVA NATIONAL PARK UTILITY SYSTEMS RECAPITALIZATION PHASE 3</b></p> <p>TERRA NOVA NATIONAL PARK</p>	
drawing	dessin	
<p><b>NEWMAN SOUND WATER MAIN OVERALL SITE PLAN</b></p>		
designed	A. MELANSON	conçu
date	2021-02-26	
drawn	S. ALLAIN	dessiné
date	2021-02-26	
approved	A. MELANSON	approuvé
date	2021-02-26	
Tender	Soumission	
PCA Project Manager		Administrateur de projets APC
project number	1716	no. du projet
drawing no.	CW01	no. du dessin



GENERAL NOTES:

1. SURVEY INFORMATION USED FOR THIS CONTRACT WAS COMPILED WITH CLIENT PROVIDED LIDAR (2013) IN CONJUNCTION WITH AVAILABLE FIELD INVESTIGATION. CONTRACTOR SHALL CONFIRM GRADES PRIOR TO COMMENCING WORK, AS DIRECTED BY THE DEPARTMENTAL REPRESENTATIVE.

2. EXISTING WATER MAIN, SANITARY SEWER, ELECTRICAL AND CAMPGROUND LAYOUT FROM INFORMATION ON ORIGINAL NEWMAN SOUND CAMPGROUNDS WATER AND SEWER DRAWINGS DATED 1971 IN COMBINATION WITH INFRASTRUCTURE FOUND DURING ENGLOBE SURVEY. ACTUAL LOCATIONS TO BE CONFIRMED IN THE FIELD BY THE CONTRACTOR.

3. DRAWINGS BASED ON COORDINATE SYSTEM UTM83-22 (UTM WITH NAD83 DATUM, ZONE 22, METER; CENTRAL MERIDIAN 51D W).

4. CONTRACTOR SHALL CONFIRM EXACT LOCATION, MATERIAL AND SIZE OF EXISTING PIPING, UNDERGROUND UTILITIES AND ALL CONNECTION POINTS IN THE FIELD, PRIOR TO ANY WATER MAIN INSTALLATION.

5. CONTRACTOR SHALL LOCATE ALL EXISTING UTILITIES IN COORDINATION WITH PCA PRIOR TO BEGINNING WORK. LOCATES MUST BE PERFORMED BY CAREFUL EXCAVATION AND HAND DIGGING IN AREAS WHERE NEW INFRASTRUCTURE IS EXPECTED TO CROSS THE EXISTING UTILITIES. AS A MINIMUM, THE CONTRACTOR SHALL EXPOSE THE EXISTING UTILITIES BEFORE WORKING WITHIN 20m OF THEM.

6. THE CONTRACTOR IS RESPONSIBLE FOR THE TEMPORARY SUPPORT OF UTILITY POLES AND UNDERGROUND UTILITY DUCTS DURING THE INSTALLATION OF THE NEW WATER MAIN AS REQUIRED, INCIDENTAL TO THE WORK.

7. ANY UTILITIES THAT MAY BECOME DAMAGED DURING CONSTRUCTION MUST BE REPORTED TO THE DEPARTMENTAL REPRESENTATIVE IMMEDIATELY. COST RESULTING FROM SAID DAMAGE TO EXISTING POWER, COMMUNICATION OR UTILITY LINES SHOWN ON DRAWINGS OR FROM LOCATES DURING CONSTRUCTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

8. SAFETY SIGNS TO BE INSTALLED PRIOR TO START OF CONSTRUCTION AND IN ACCORDANCE WITH WORK AREA TRAFFIC CONTROL MANUAL.

9. THE CONTRACTOR MUST HAVE A COPY OF ALL APPROVED ENVIRONMENTAL PERMITS (IF REQUIRED) ON-SITE AT ALL TIMES AS WELL AS PARKS CANADA BASIC IMPACT ANALYSIS (B.I.A.).

10. EROSION CONTROL STRUCTURES AND SILT FENCING TO BE INSTALLED PRIOR TO START OF THE WORK, INCIDENTAL TO THE WORK. CONTRACTOR TO PROVIDE EROSION CONTROL PLANS TO DEPARTMENTAL REPRESENTATIVE FOR APPROVAL PRIOR TO START OF WORK.

11. TREE CLEARING TO BE KEPT TO A MINIMUM AND TO BE APPROVED BY THE DEPARTMENTAL REPRESENTATIVE. ADJUSTMENTS TO THE PIPE ALIGNMENTS TO BE DONE IN THE FIELD TO MINIMIZE TREE CLEARING WITH THE DEPARTMENTAL REPRESENTATIVE'S APPROVAL.

12. USE OF HAY IS STRICTLY PROHIBITED.

13. AT NO POINT SHALL THE CONTRACTOR IMPORT ANY TOP SOIL UNLESS REQUESTED AND APPROVED BY THE DEPARTMENTAL REPRESENTATIVE.

14. HYDROSEED WILL BE PERMITTED ONLY IN EXISTING OPEN GRASS AREAS UNLESS REQUESTED AND APPROVED BY THE DEPARTMENTAL REPRESENTATIVE.
15. THE CONTRACTOR SHALL STOCKPILE TOP 150mm OF SOIL FROM GRUBBINGS AND RE-USE AS TOP DRESSING FOR RIGHT-OF-WAY, LAY DOWN AREAS AND ANY DISTURBED AREAS FOLLOWING THE INSTALLATION OF THE NEW WATER MAIN.

16. EXISTING ASPHALT TO BE CUT SQUARE USING A SAW BEFORE THE START OF THE WORK, REFER TO SPECIFICATIONS.

17. ALL EXISTING WATER MAINS AND VALVES SHALL BE REMOVED WITHIN THE LIMITS OF THE WORK NEW WORK. ALL EXISTING INFRASTRUCTURE OUTSIDE OF THE WORK LIMITS SHALL BE ABANDONED IN PLACE, AS PER SPECIFICATIONS, INCIDENTAL TO THE WORK.

18. CONTRACTOR SHALL CONNECT ALL NEW SERVICES TO EXISTING BUILDINGS C/W MANUFACTURER RECOMMENDED COUPLING/FITTING UNLESS OTHERWISE NOTED.

19. VALVE CHAMBERS, OR ANY OTHER CHAMBERS SHALL BE PRE-CAST CONCRETE STRUCTURES (SEE DETAILS), INCLUDING STANDARD FRAME AND COVERS CAPABLE OF WITHSTANDING TRAFFIC LOADING (H-20). ADJUSTABLE FRAME AND COVER SHALL BE USED WITHIN ASPHALT ROADWAY, OTHERWISE USE STANDARD COVERS.

20. 50mm THICK CLOSED CELL INSULATION TO BE PLACED ON MAINS AND SERVICES WHERE COVER IS LESS THAN 1.8m. INSULATION TO BE MIN. 1.2m WIDE.

21. THE NEW WATER LINE SHALL BE INSTALLED IN A MANNER TO AVOID ANY HIGH POINTS. WHERE UNAVOIDABLE A 50mmØ COMBINATION AIR VALVE IN 1050mmØ AIR RELEASE AND VACUUM VALVE CHAMBER C/W VENT SHALL BE INSTALLED AS SHOWN ON THE DRAWINGS.

22. NEW SERVICES (VALVES) TO BUILDINGS SHALL NOT BE OPENED OR MADE OPERATIONAL UNTIL AUTHORIZED BY PARKS CANADA REPRESENTATIVE.

23. NEW FIRE HOSE BOXES SHALL BE A MINIMUM OF 2.0m AWAY FROM THE ROAD IN THE APPROXIMATE LOCATIONS SHOWN ON THE DRAWINGS. FIRE BOX/STAND PIPE ISOLATION VALVES SHALL BE INSTALLED UNDERGROUND 1.2m IN FRONT OF THE FIRE BOX'S CONCRETE SLAB.

24. ALL DISTURBED AREAS SHALL BE REINSTATED TO PREVIOUS CONDITIONS OR BETTER; IN ACCORDANCE WITH THE SPECIFICATIONS.

25. ALL GRASSED AREAS DISTURBED DURING CONSTRUCTION SHALL BE RESTORED IN ACCORDANCE WITH THE SPECIFICATIONS.

26. EXISTING ASPHALT AND CRUSHED ROCK DRIVEWAYS AFFECTED BY THE WORK SHALL BE RESTORED IN ACCORDANCE WITH THE SPECIFICATIONS.

27. TACK COAT SHALL BE PLACED ON ALL EXISTING ASPHALT SURFACES PRIOR TO ASPHALT PLACEMENT.

28. ALL DITCHES DISTURBED DURING THE COURSE OF THE WORK WILL BE CLEANED OUT AND RESHAPED BY THE CONTRACTOR AT HIS OWN EXPENSE AT THE END OF EACH WORK DAY, ALL TO THE SATISFACTION OF THE DEPARTMENTAL REPRESENTATIVE.

29. REFER TO SPECIFICATIONS FOR GEOTECHNICAL REPORT.

30. NEW SEWER MAIN SHOWN FOR INFORMATION PURPOSES ONLY, REFER TO "CS" SEWER MAIN DRAWINGS.

31. WHERE EXISTING ELECTRICAL SERVICES ARE PROVIDED TO EACH CAMP SITE, THE CONTRACTOR SHALL BE AWARE THAT EACH CAMP SITE HAS IT'S OWN DIRECT SERVICE FROM THE ELECTRICAL PANEL TO THE CAMP SITE. THEREFORE THERE WILL BE SEVERAL CABLES ADJACENT TO ONE ANOTHER ALONG THE MAIN ROUTE.

LEGEND:

- W

W

E

SAN

NEW WATER MAIN

EXISTING WATER MAIN

EXISTING U/G ELECTRICAL LINE(S) (1 OR MORE)

EXISTING 150mm Ø CONCRETE SANITARY SEWER

NEW STAND PIPE

EXISTING STAND PIPE

EXISTING VALVE

EXISTING HYDRANT

NEW VALVE

NEW FIRE HOSE BOX

NEW FIRE HYDRANT

NEW REDUCER

NEW WATER BOTTLE FILLING STATION / FOUNTAIN

NEW AIR RELEASE VALVE

NEW END CAP

NEW CURB STOP

NEW COUPLING

EXISTING SANITARY MANHOLE

EXISTING CAMPSITE

EXISTING CULVERT

EXISTING DITCH

BUILDING NUMBER

EXISTING BOREHOLE

ASPHALT MILLINGS ROADS

ASPHALT ROADS

GRAVEL ROADS

CS 16

28

BH-NS-#

ASPHALT MILLINGS ROADS

ASPHALT ROADS

GRAVEL ROADS

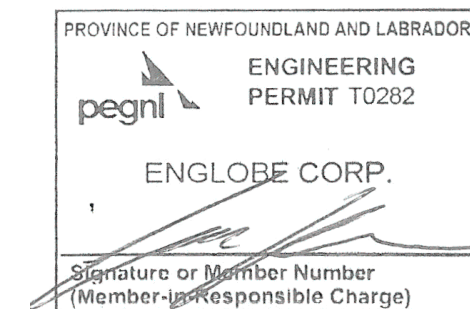
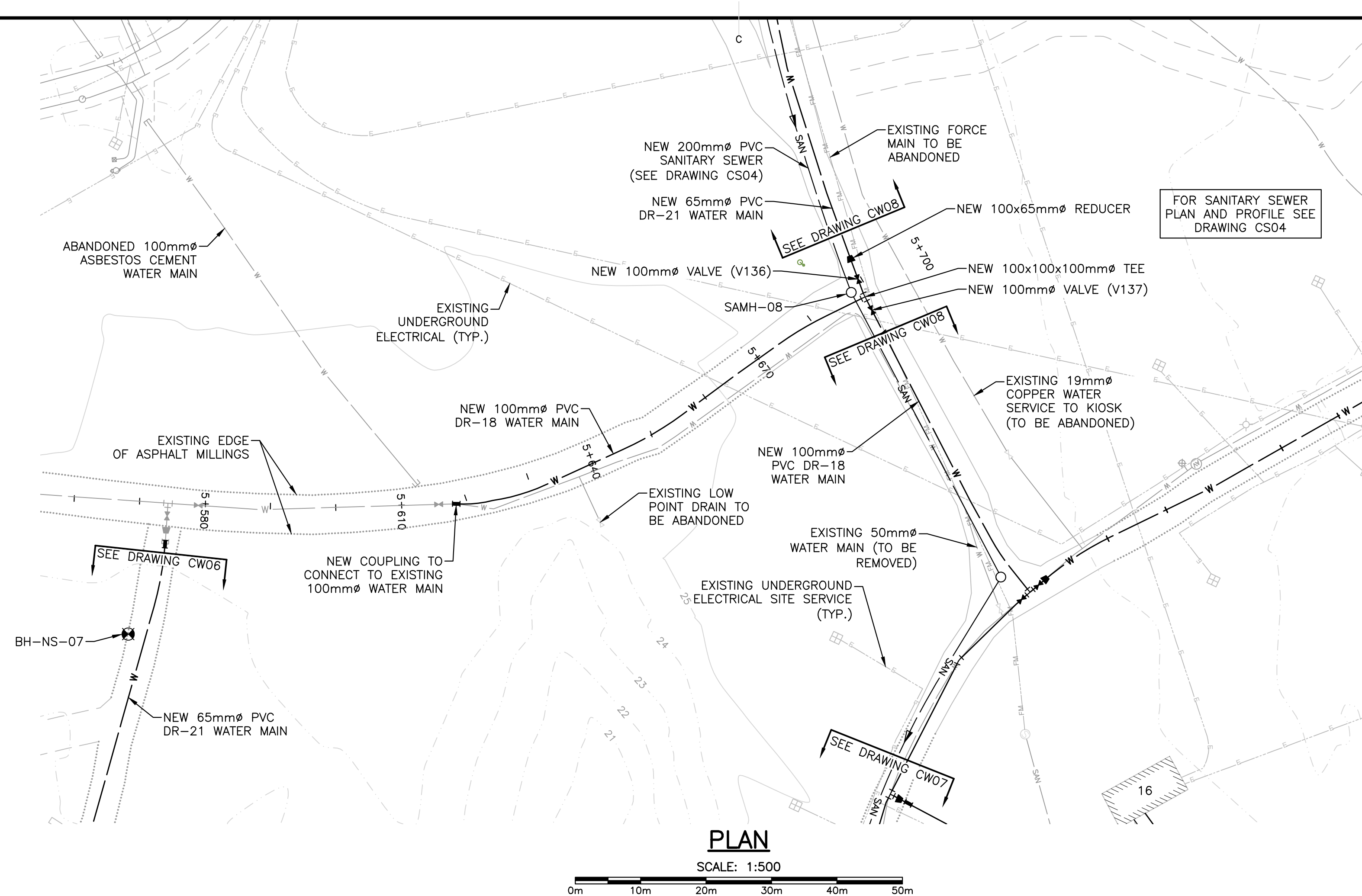
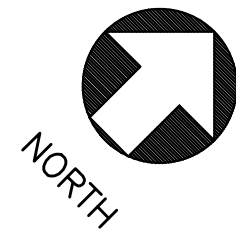
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0.0	ISSUED FOR TENDER	05/31 2021
revisions		date
project	TERRA NOVA NATIONAL PARK UTILITY SYSTEMS RECAPITALIZATION PHASE 3	
TERRA NOVA NATIONAL PARK		
drawing	dessin	
NEWMAN SOUND WATER MAIN GENERAL NOTES & LEGEND		
designed	A. MELANSON	conçu
date	2021-02-26	
drawn	S. ALLAIN	dessiné
date	2021-02-26	
approved	A. MELANSON	approuvé
date	2021-02-26	
Tender	Soumission	
PCA Project Manager	Administrateur de projets APC	
project number	no. du projet	
1716		
drawing no.	no. du dessin	
CW02		

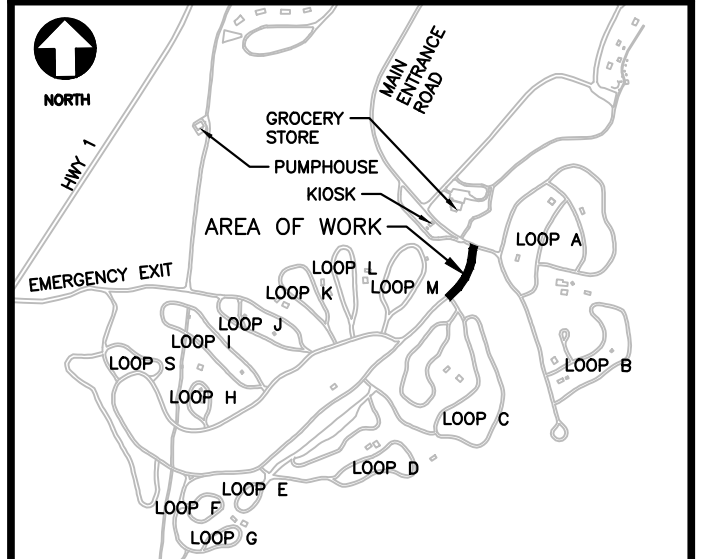
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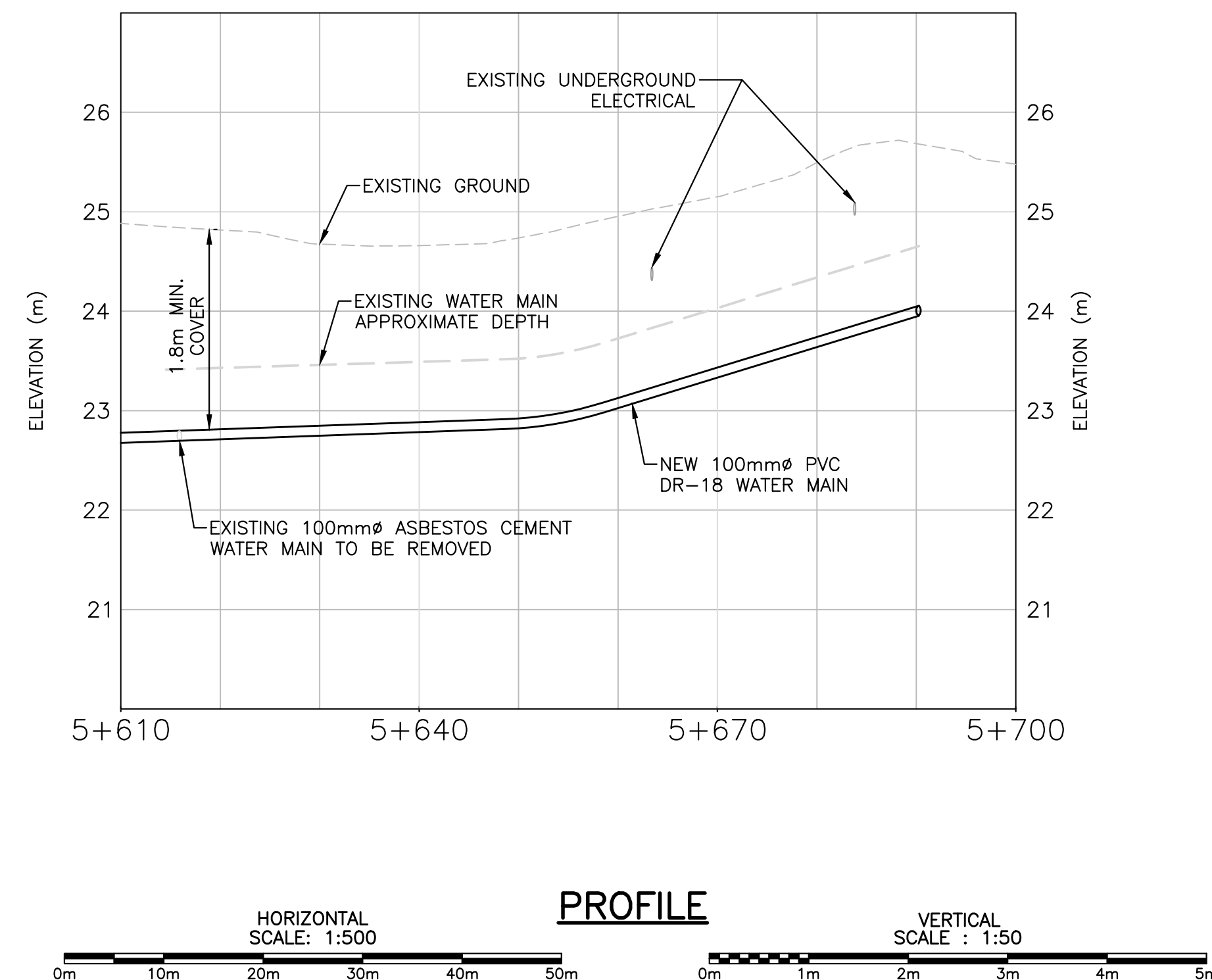


KEY PLAN



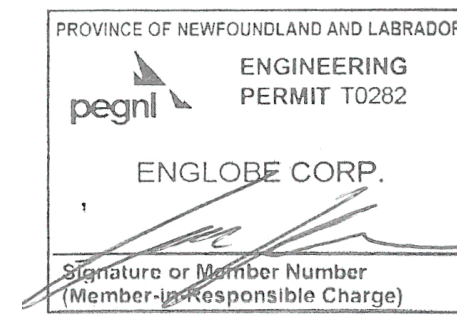
NOTES:

- SEE GENERAL NOTES AND LEGEND ON DRAWING CW02.
- LOCATION OF WATER SERVICE LINES TO FIRE BOXES, STANDPIPES, WASHROOMS, COOK SHELTERS ETC. ARE APPROXIMATE. EXACT PATH OF WATER SERVICE LINE SHALL BE DETERMINED IN THE FIELD BY THE DEPARTMENTAL REPRESENTATIVE SUCH THAT IMPACTS TO TREES ARE LIMITED.
- IN LOCATIONS WHERE NEW UTILITIES GO THROUGH TREED AREAS, THE CONTRACTOR WILL BE REQUIRED TO USE SMALLER EQUIPMENT AND TRENCH BOXES AS NEEDED TO AVOID AND/OR MINIMIZE THE IMPACT TO THE NATURAL ENVIRONMENT.

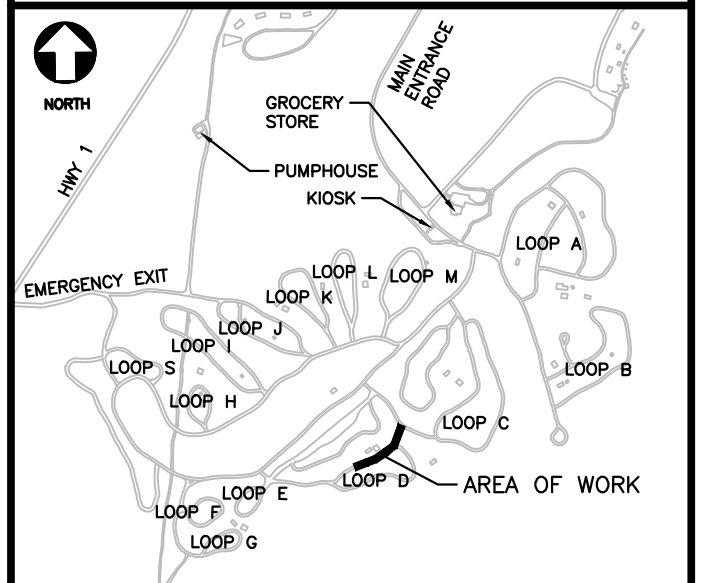


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revisions		date
project	TERRA NOVA NATIONAL PARK UTILITY SYSTEMS RECAPITALIZATION PHASE 3	
drawing	CAMPGROUND MAIN ROAD WATER MAIN PLAN & PROFILE STA. 5+610 TO 5+700	
designed	A. MELANSON	conçu
date	2021-02-26	
drawn	J. MUNN/S. ALLAIN	dessiné
date	2021-02-26	
approved	A. MELANSON	approuvé
date	2021-02-26	
Tender	Soumission	
PCA Project Manager	Administrateur de projets APC	
project number	1716	
drawing no.	CW03	





## KEY PLAN

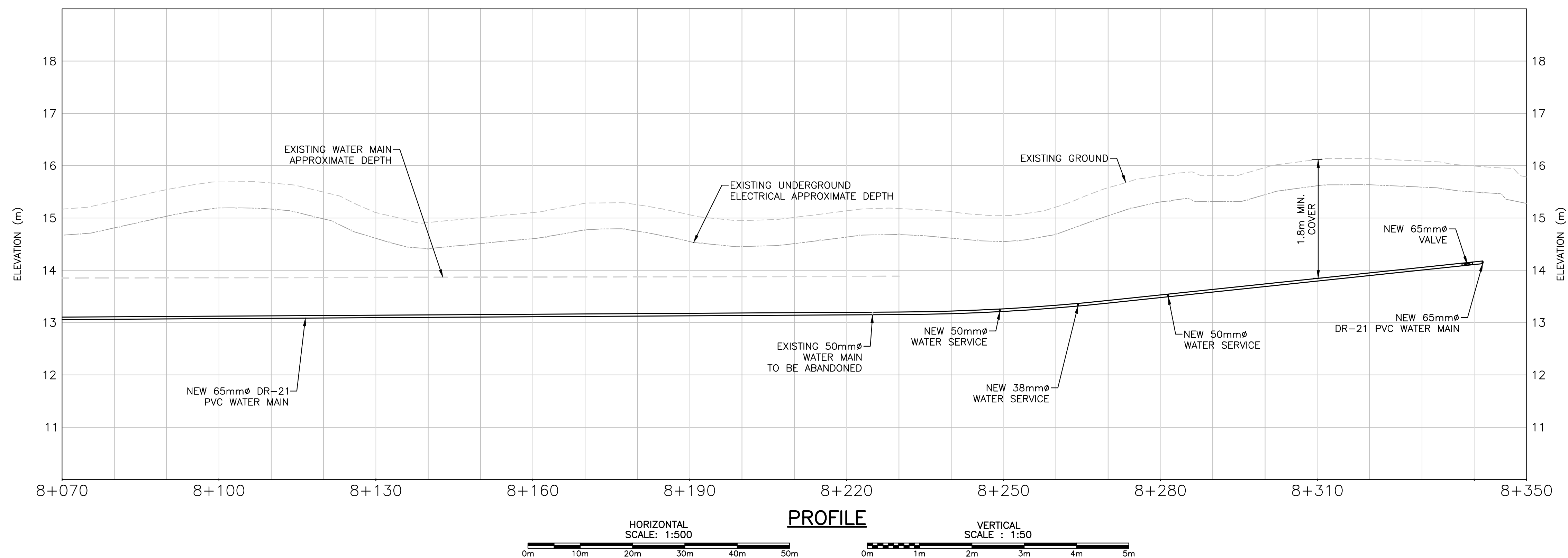


NOTES:

1. SEE GENERAL NOTES AND LEGEND ON DRAWING CW02.
2. LOCATION OF WATER SERVICE LINES TO FIRE BOXES, STANDPIPES, WASHROOMS, COOK SHELTERS ETC. ARE APPROXIMATE. EXACT PATH OF WATER SERVICE LINE SHALL BE DETERMINED IN THE FIELD BY THE DEPARTMENTAL REPRESENTATIVE SUCH THAT IMPACTS TO TREES ARE LIMITED.
3. IN LOCATIONS WHERE NEW UTILITIES GO THROUGH TREED AREAS, THE CONTRACTOR WILL BE REQUIRED TO USE SMALLER EQUIPMENT AND TRENCH BOXES AS NEEDED TO AVOID AND/OR MINIMIZE THE IMPACT TO THE NATURAL ENVIRONMENT.

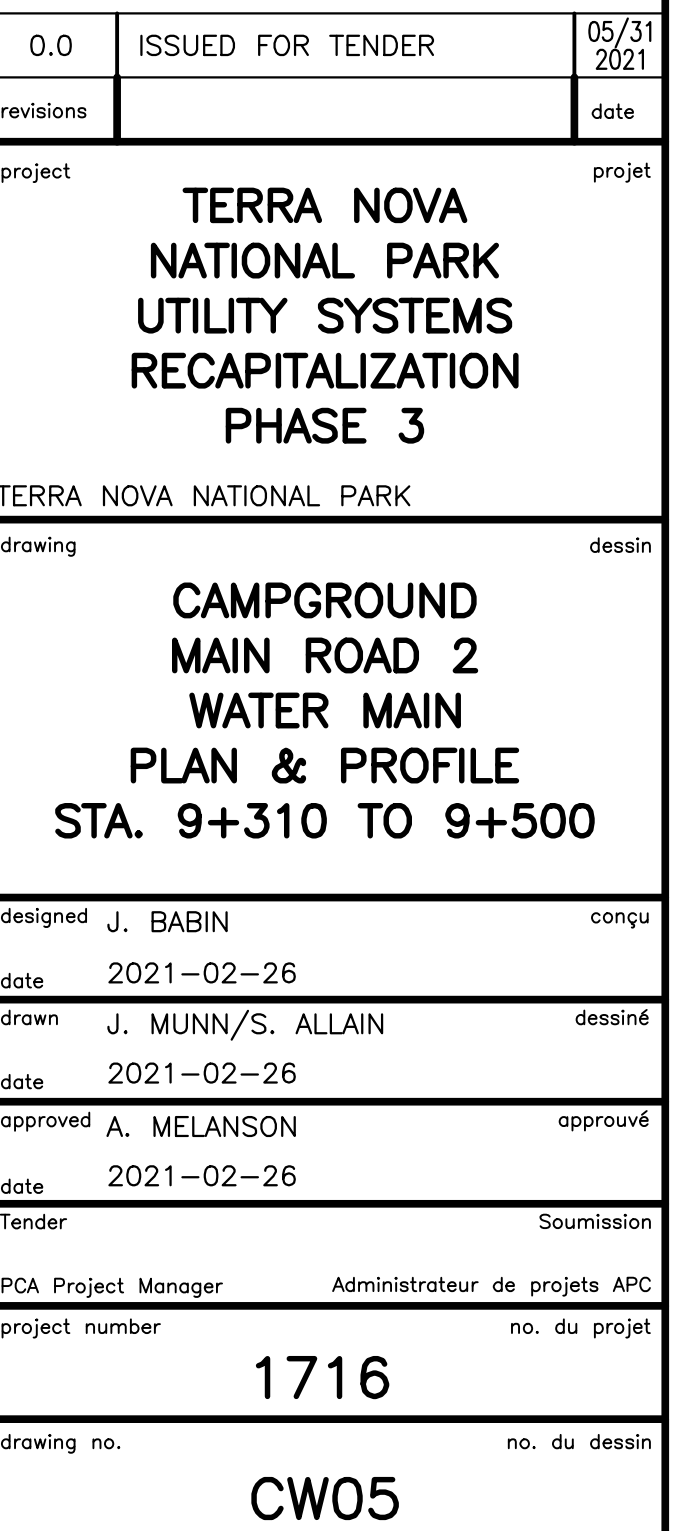
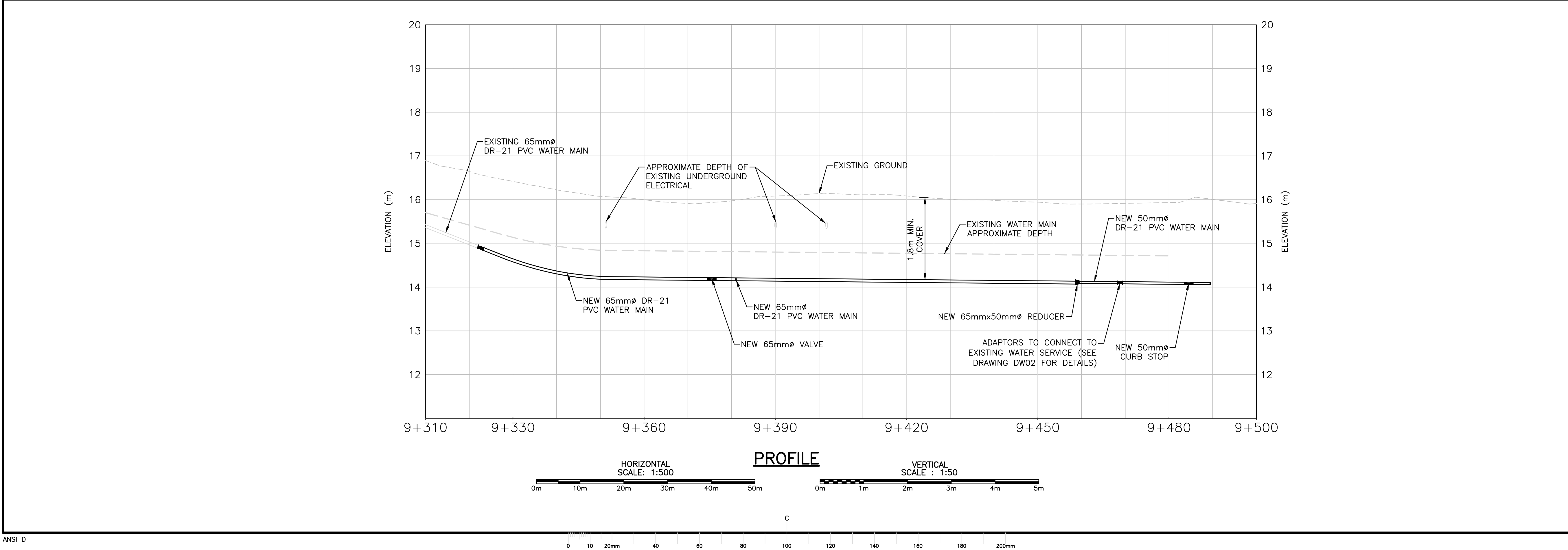
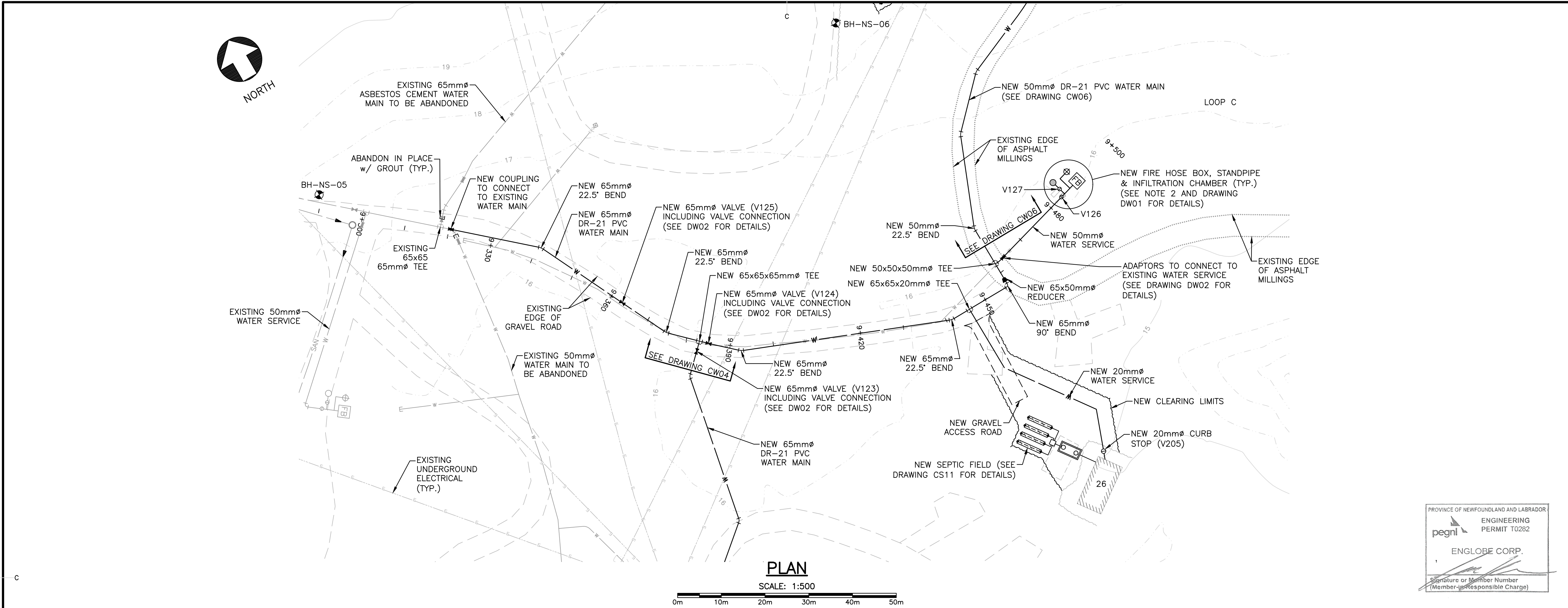


O.O	ISSUED FOR TENDER	05/31 2021
revisions		date
project	project	
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TERRA NOVA NATIONAL PARK		
drawing	dessin	
<p style="text-align: center;"><b>LOOP D WATER MAIN PLAN &amp; PROFILE STA. 8+070 TO 8+350</b></p>		
designed	J. BABIN	conçu
date	2021-02-26	
drawn	J. MUNN/S. ALLAIN	dessiné
date	2021-02-26	
approved	A. MELANSON	approuvé
date	2021-02-26	
Tender		Soumission
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project number		no. du projet
1716		
drawing no.		no. du dessin
CW04		

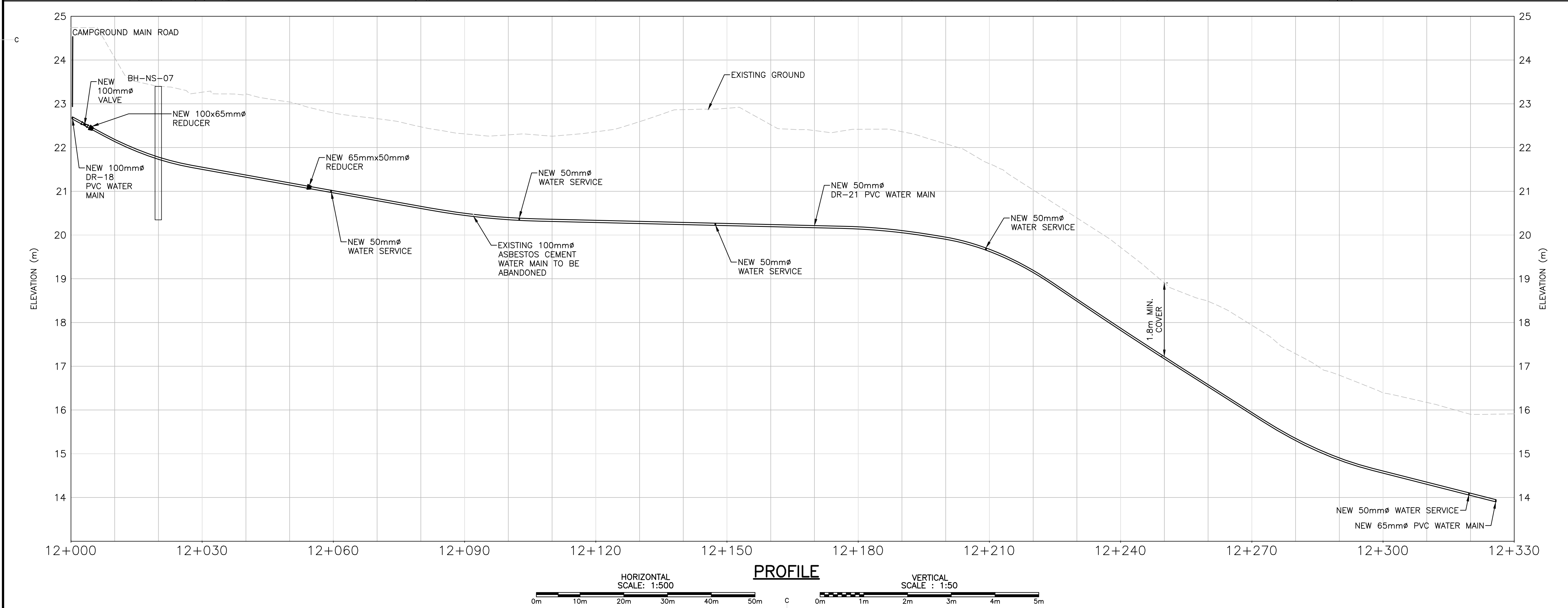
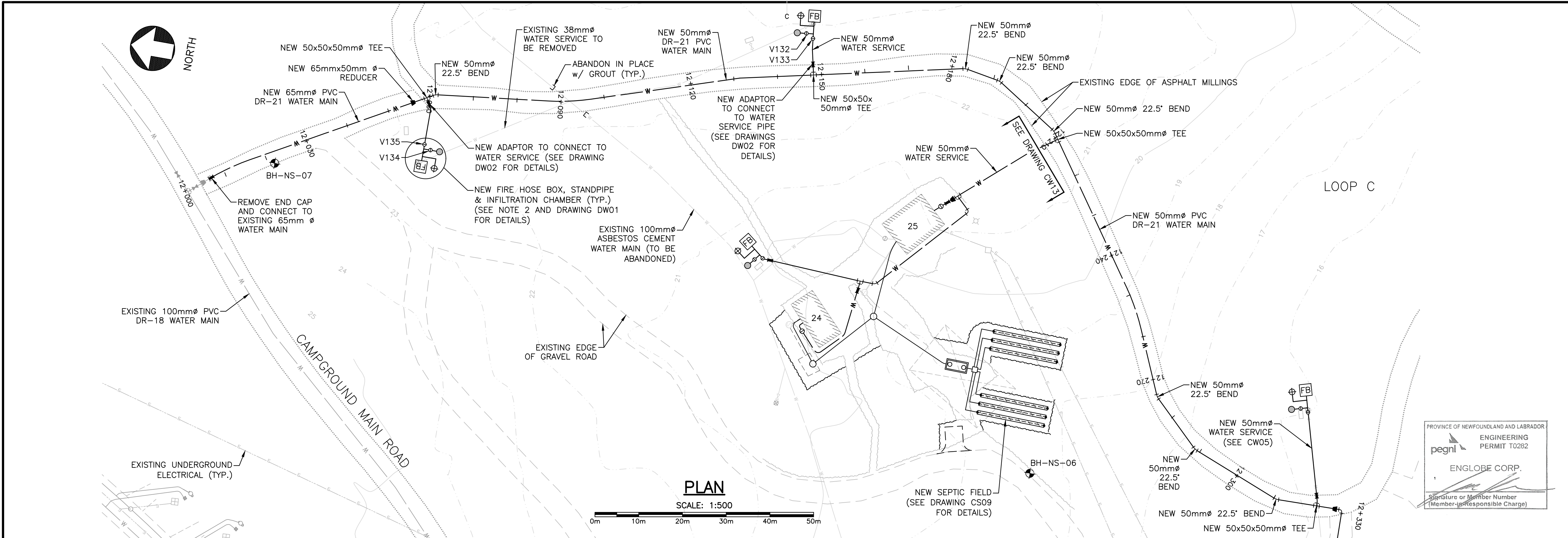



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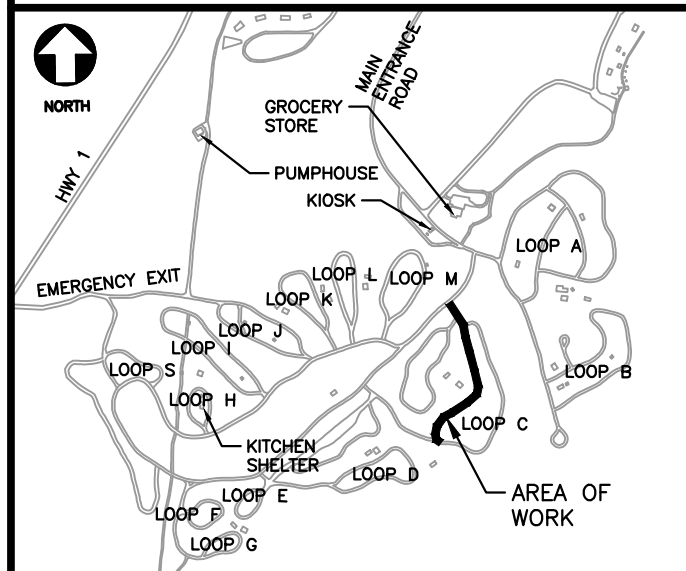







Englobe

KEY PLAN



NOTES:

- SEE GENERAL NOTES AND LEGEND ON DRAWING CW02.
- LOCATION OF WATER SERVICE LINES TO FIRE BOXES, STANDPIPES, WASHROOMS, COOK SHELTERS ETC. ARE APPROXIMATE. EXACT PATH OF WATER SERVICE LINE SHALL BE DETERMINED IN THE FIELD BY THE DEPARTMENTAL REPRESENTATIVE SUCH THAT IMPACTS TO TREES ARE LIMITED.
- IN LOCATIONS WHERE NEW UTILITIES GO THROUGH TREADED AREAS, THE CONTRACTOR WILL BE REQUIRED TO USE SMALLER EQUIPMENT AND TRENCH BOXES AS NEEDED TO AVOID AND/OR MINIMIZE THE IMPACT TO THE NATURAL ENVIRONMENT.

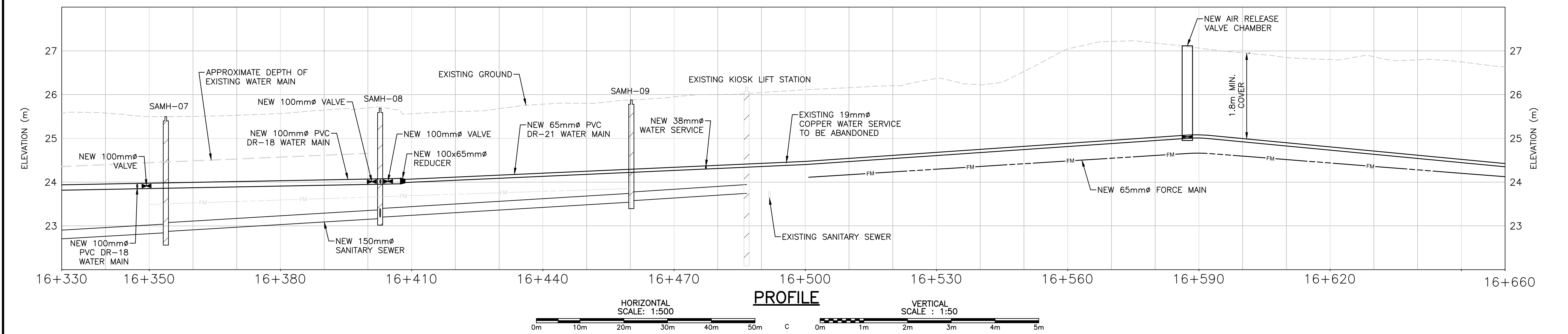
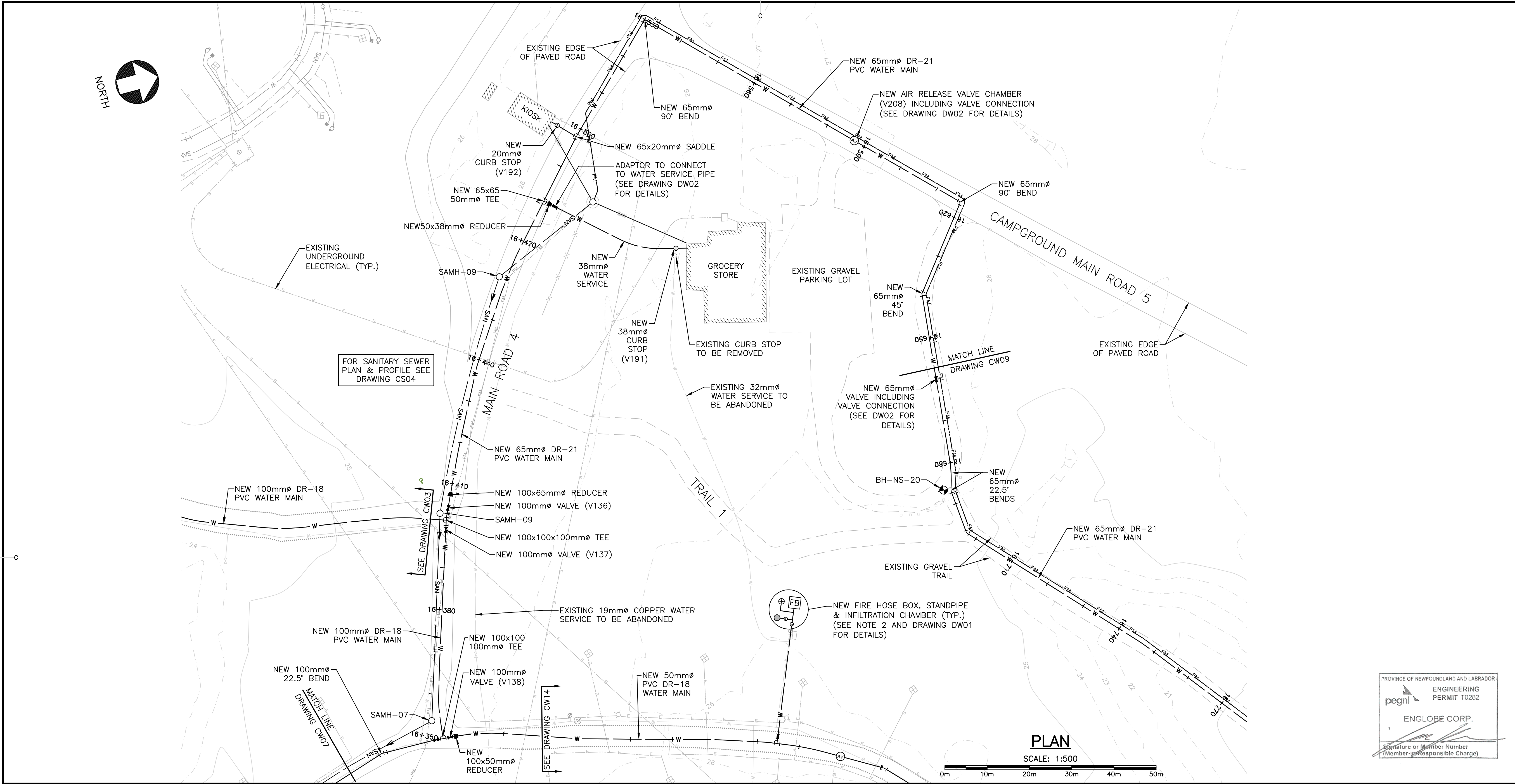


0.0	ISSUED FOR TENDER	05/31 2021
revisions		date
project	TERRA NOVA NATIONAL PARK UTILITY SYSTEMS RECAPITALIZATION PHASE 3	
drawing	LOOP C WATER MAIN PLAN & PROFILE STA. 12+000 TO 12+330	
designed	J. BABIN	conçu
date	2021-02-26	
drawn	J. MUNN/S. ALLAIN	dessiné
date	2021-02-26	
approved	J. BABIN	approuvé
date	2021-02-26	
Tender	Soumission	
PCA Project Manager	Administrateur de projets APC	
project number	1716	
drawing no.	CW06	









Parks  
Canada

Parcs  
Canada

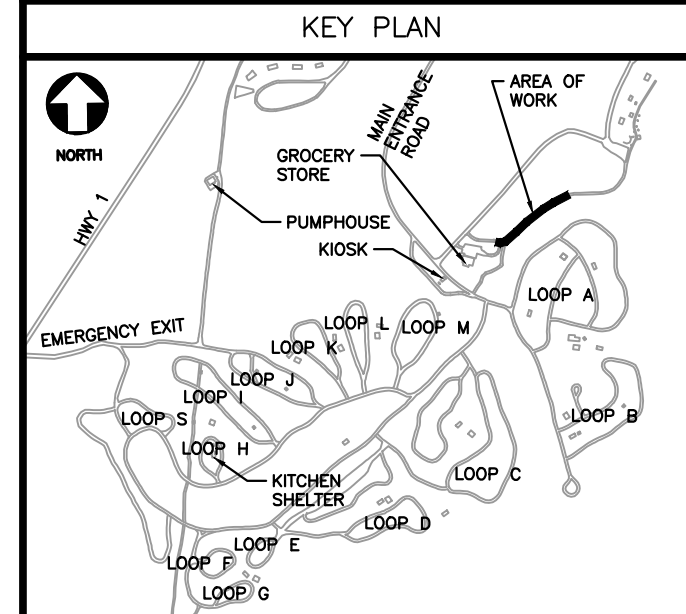
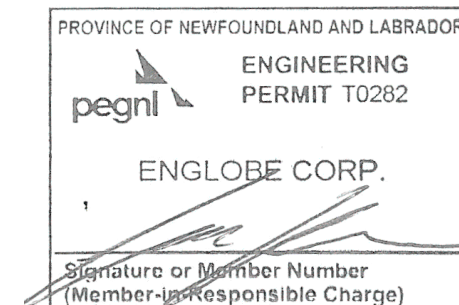
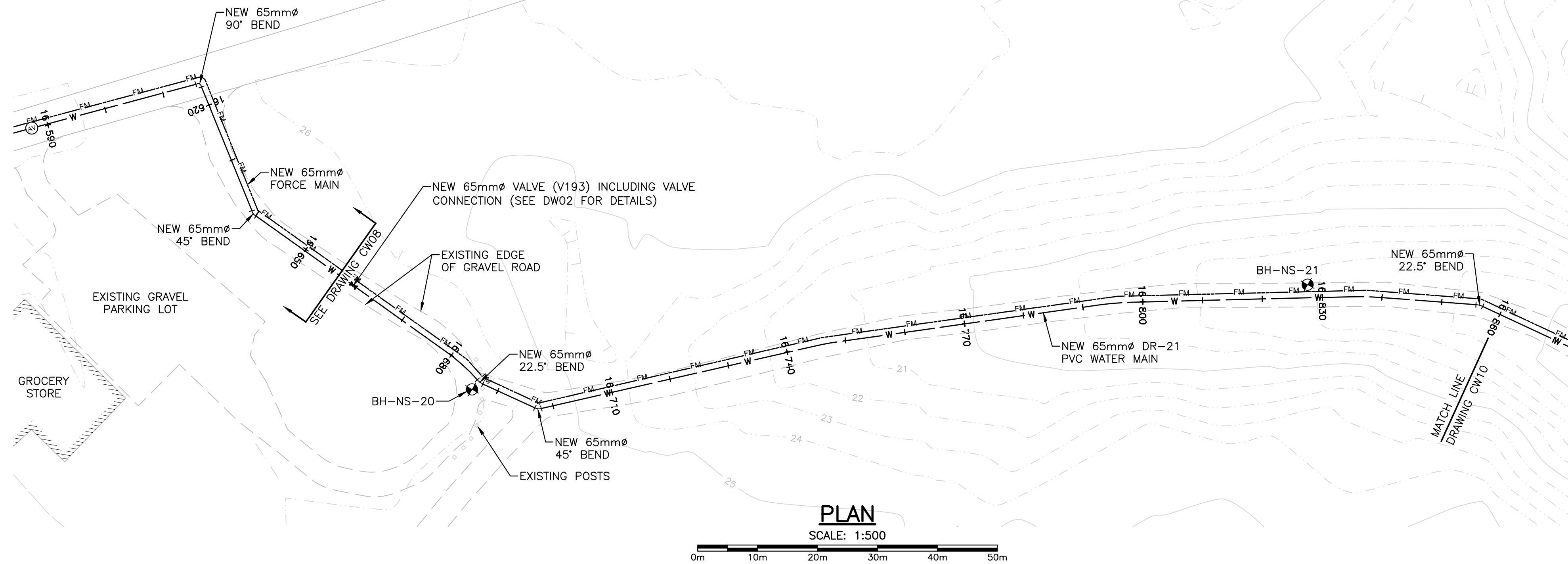
KEY PLAN

NOTES:

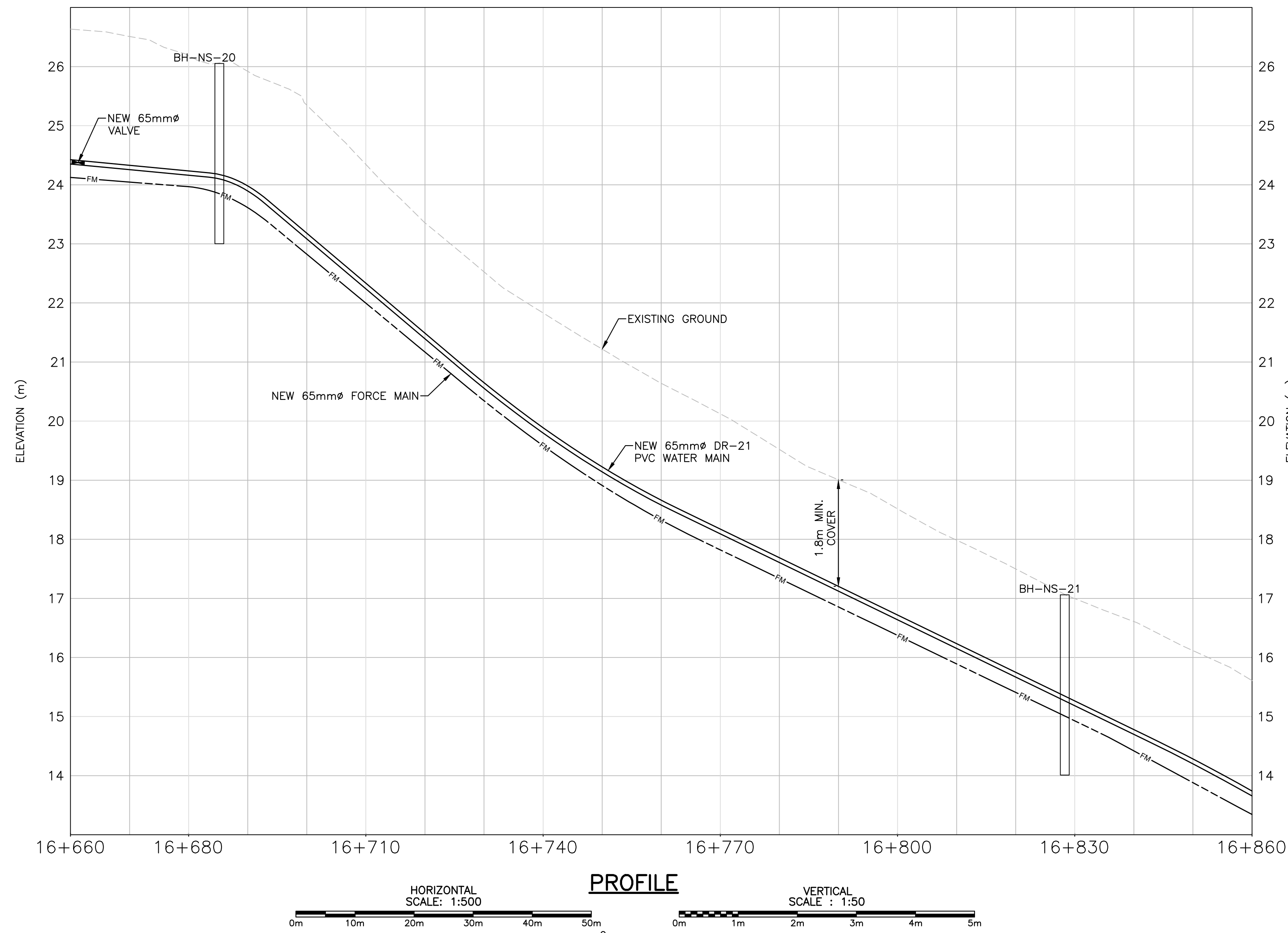
- SEE GENERAL NOTES AND LEGEND ON DRAWING CW02.
- LOCATION OF WATER SERVICE LINES TO FIRE BOXES, STANDPIPES, WASHROOMS, COOK SHELTERS ETC. ARE APPROXIMATE. EXACT PATH OF WATER SERVICE LINE SHALL BE DETERMINED IN THE FIELD BY THE DEPARTMENTAL REPRESENTATIVE SUCH THAT IMPACTS TO TREES ARE LIMITED.
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0.0	ISSUED FOR TENDER	05/31 2021
revisions		date
project	<b>TERRA NOVA NATIONAL PARK UTILITY SYSTEMS RECAPITALIZATION PHASE 3</b>	
drawing	<b>CAMPGROUND MAIN ROAD 4 WATER MAIN PLAN &amp; PROFILE STA. 16+330 TO 16+660</b>	
designed	J. BABIN	conçu
date	2021-02-26	
drawn	J. MUNN/S. ALLAIN	dessiné
date	2021-02-26	
approved	A. MELANSON	approuvé
date	2021-02-26	
Tender	Soumission	
PCA Project Manager	Administrateur de projets APC	
project number	no. du projet	
	1716	
drawing no.	no. du dessin	
	CW08	





- NOTES:**
- SEE GENERAL NOTES AND LEGEND ON DRAWING CW02.
  - LOCATION OF WATER SERVICE LINES TO FIRE BOXES, STANDPIPES, WASHROOMS, COOK SHELTERS ETC. ARE APPROXIMATE. EXACT PATH OF WATER SERVICE LINE SHALL BE DETERMINED IN THE FIELD BY THE DEPARTMENTAL REPRESENTATIVE SUCH THAT IMPACTS TO TREES ARE LIMITED.
  - IN LOCATIONS WHERE NEW UTILITIES GO THROUGH TREED AREAS, THE CONTRACTOR WILL BE REQUIRED TO USE SMALLER EQUIPMENT AND TRENCH BOXES AS NEEDED TO AVOID AND/OR MINIMIZE THE IMPACT TO THE NATURAL ENVIRONMENT.



0.0	ISSUED FOR TENDER	05/31 2021
revisions		date
project	TERRA NOVA NATIONAL PARK UTILITY SYSTEMS RECAPITALIZATION PHASE 3	
drawing	CAMPGROUND TRAIL WATER MAIN PLAN & PROFILE STA. 16+660 TO 16+860	
designed	J. BABIN	conçu
date	2021-02-26	
drawn	J. MUNN/S. ALLAIN	dessiné
date	2021-02-26	
approved	A. MELANSON	approuvé
date	2021-02-26	
Tender		Soumission
PCA Project Manager	Administrateur de projets APC	
project number	1716	
drawing no.	CW09	

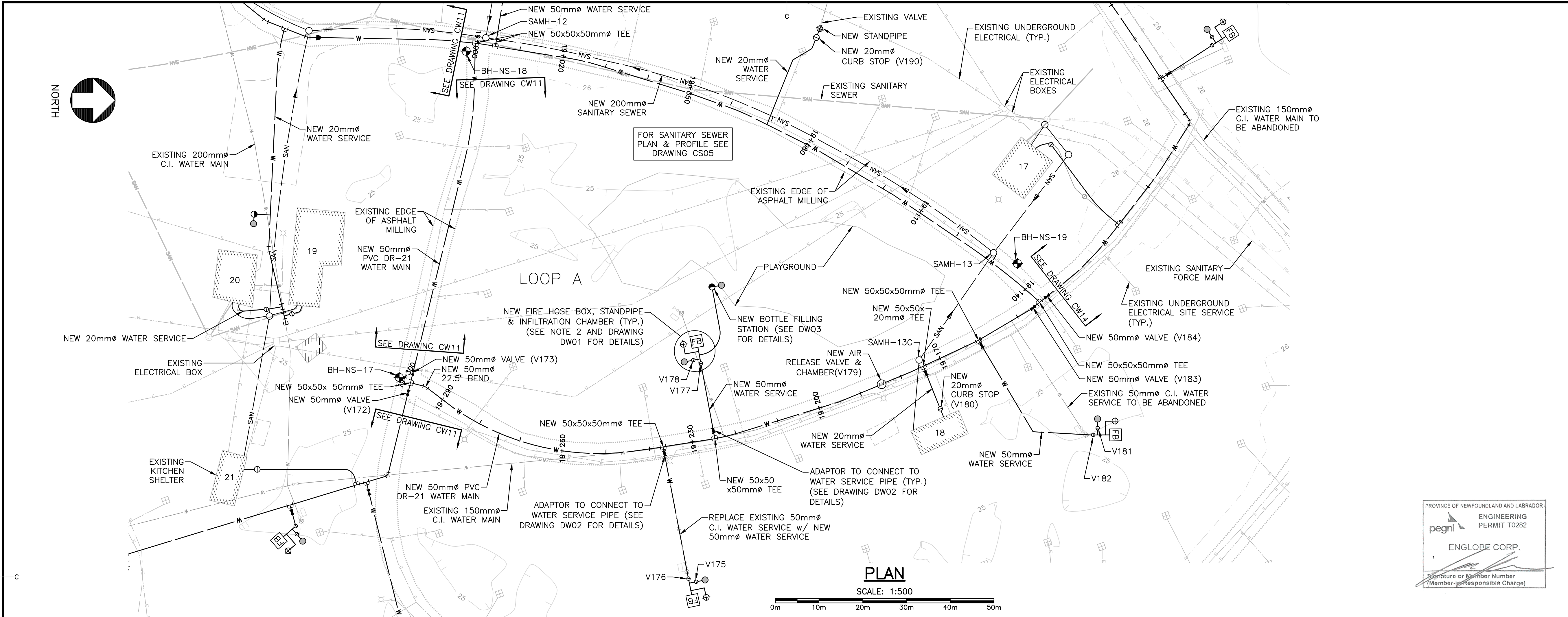








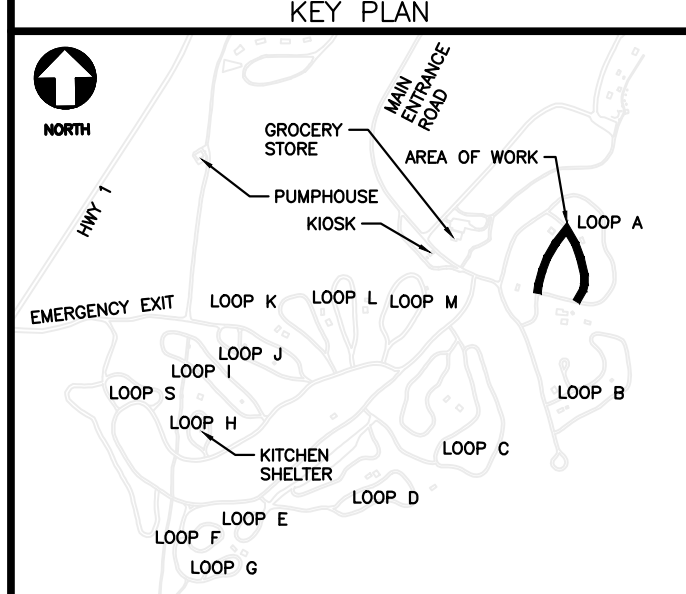








KEY PLAN



NOTES:


- SEE GENERAL NOTES AND LEGEND ON DRAWING CW02.
- LOCATION OF WATER SERVICE LINES TO FIRE BOXES, STANDPIPES, WASHROOMS, COOK SHELTERS ETC. ARE APPROXIMATE. EXACT PATH OF WATER SERVICE LINE SHALL BE DETERMINED IN THE FIELD BY THE DEPARTMENTAL REPRESENTATIVE SUCH THAT IMPACTS TO TREES ARE LIMITED.
- IN LOCATIONS WHERE NEW UTILITIES GO THROUGH TREED AREAS, THE CONTRACTOR WILL BE REQUIRED TO USE SMALLER EQUIPMENT AND TRENCH BOXES AS NEEDED TO AVOID AND/OR MINIMIZE THE IMPACT TO THE NATURAL ENVIRONMENT.

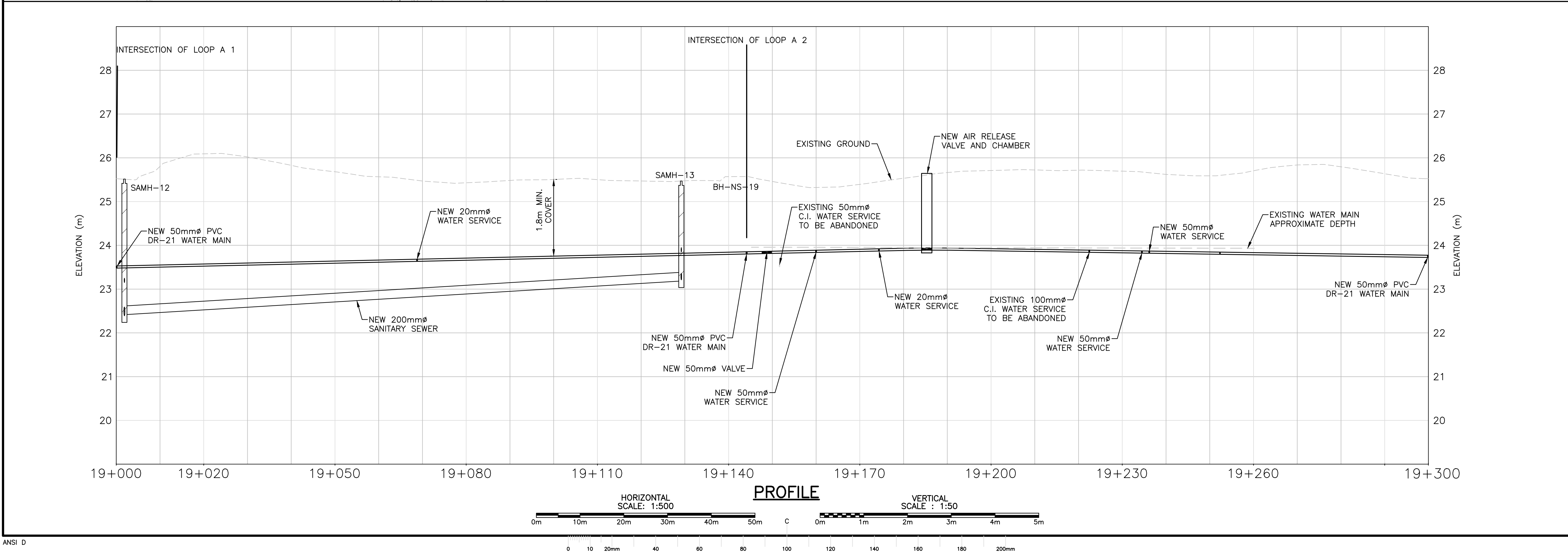
PROVINCE OF NEWFOUNDLAND AND LABRADOR

ENGINEERING PERMIT T0282

ENGLOBE CORP.

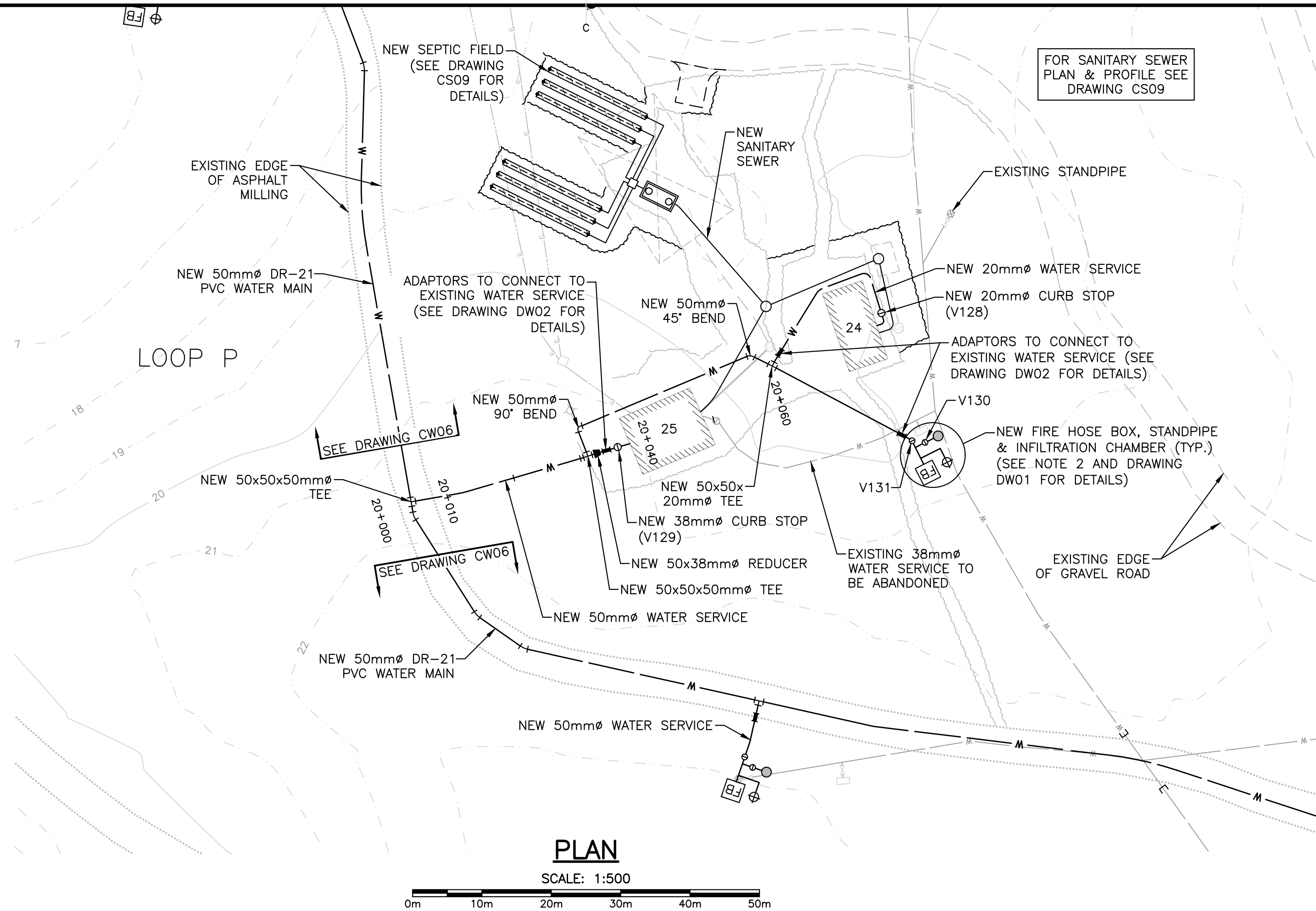
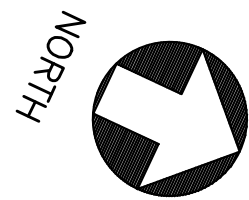
Signature or Number Number (Member-Responsible Charge)





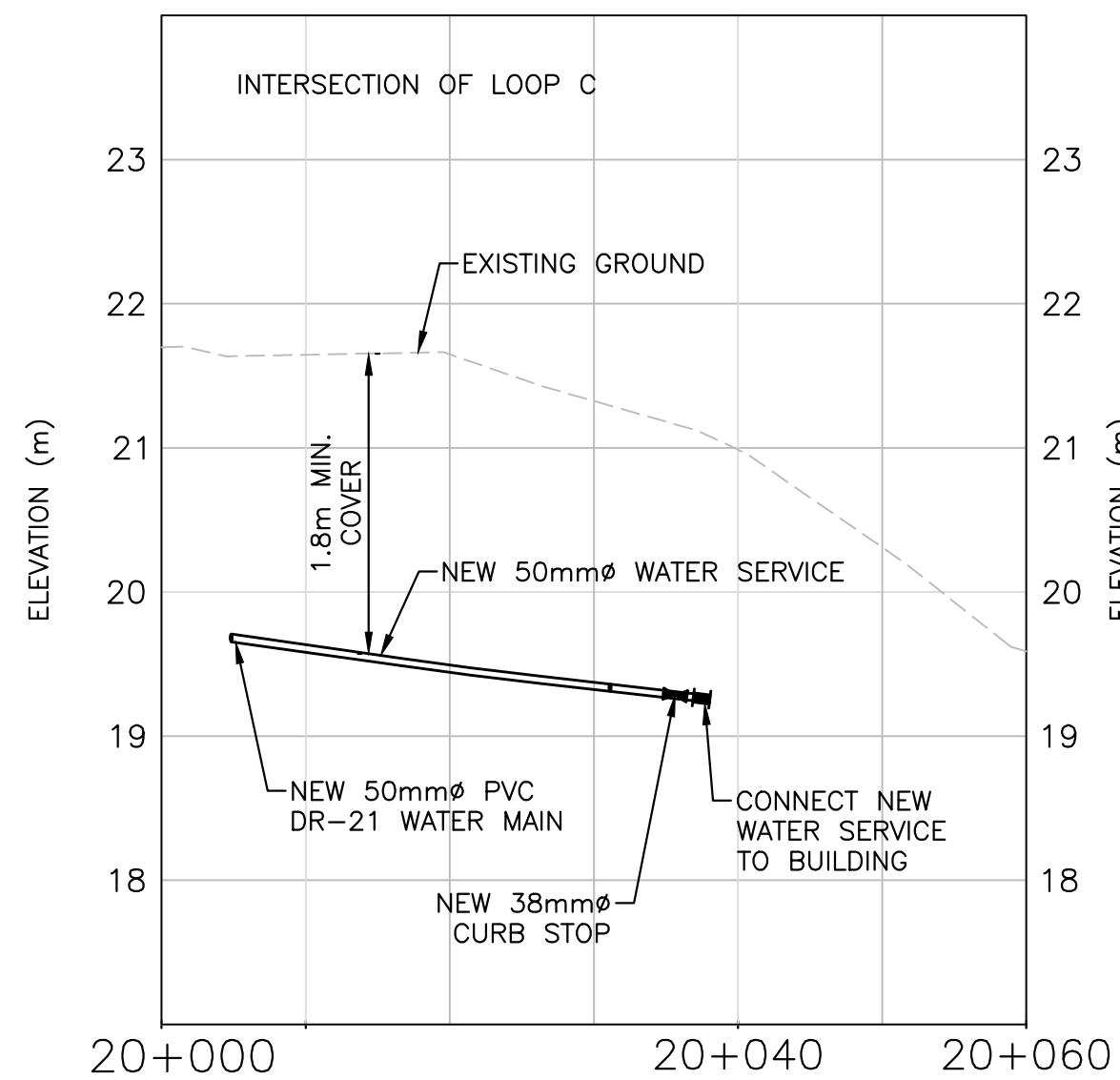
0.0	ISSUED FOR TENDER	05/31 2021
revisions		date
project	project	
TERRA NOVA NATIONAL PARK UTILITY SYSTEMS RECAPITALIZATION PHASE 3		
TERRA NOVA NATIONAL PARK		
drawing	dessin	
LOOP A 2 ROAD WATER MAIN PLAN & PROFILE STA. 19+000 TO 19+300		
designed	J. BABIN	conçu
date	2021-02-26	
drawn	J. MUNN/S. ALLAIN	dessiné
date	2021-02-26	
approved	A. MELANSON	approuvé
date	2021-02-26	
Tender	Soumission	
PCA Project Manager	Administrateur de projets APC	
project number	no. du projet	
1716		
drawing no.	no. du dessin	
CW12		





PLAN

SCALE: 1:500



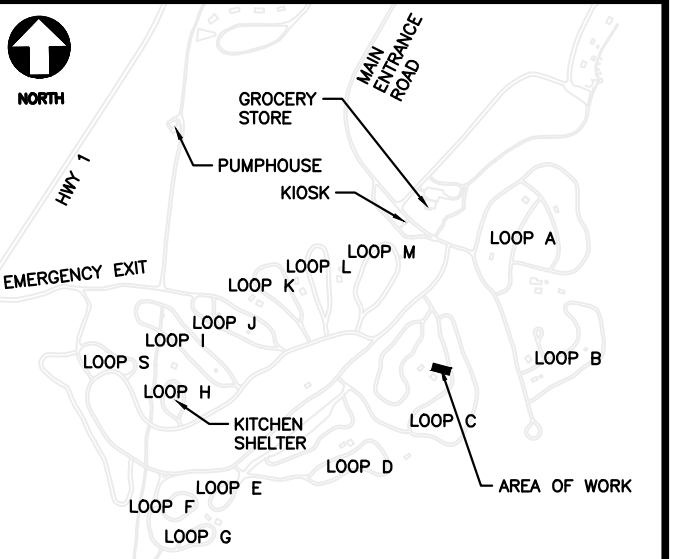
PROFILE

HORIZONTAL  
SCALE: 1:500

VERTICAL  
SCALE: 1:50

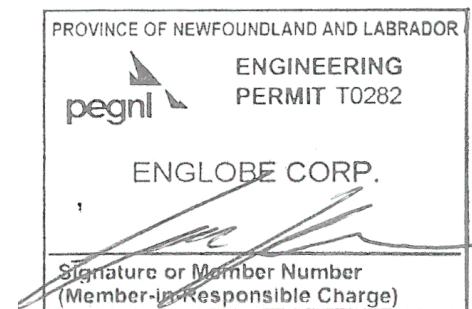


KEY PLAN



NOTES:

- SEE GENERAL NOTES AND LEGEND ON DRAWING CW02.
- LOCATION OF WATER SERVICE LINES TO FIRE BOXES, STANDPIPES, WASHROOMS, COOK SHELTERS ETC. ARE APPROXIMATE. EXACT PATH OF WATER SERVICE LINE SHALL BE DETERMINED IN THE FIELD BY THE DEPARTMENTAL REPRESENTATIVE SUCH THAT IMPACTS TO TREES ARE LIMITED.
- IN LOCATIONS WHERE NEW UTILITIES GO THROUGH TREED AREAS, THE CONTRACTOR WILL BE REQUIRED TO USE SMALLER EQUIPMENT AND TRENCH BOXES AS NEEDED TO AVOID AND/OR MINIMIZE THE IMPACT TO THE NATURAL ENVIRONMENT.



0.0	ISSUED FOR TENDER	05/31 2021
revisions		date

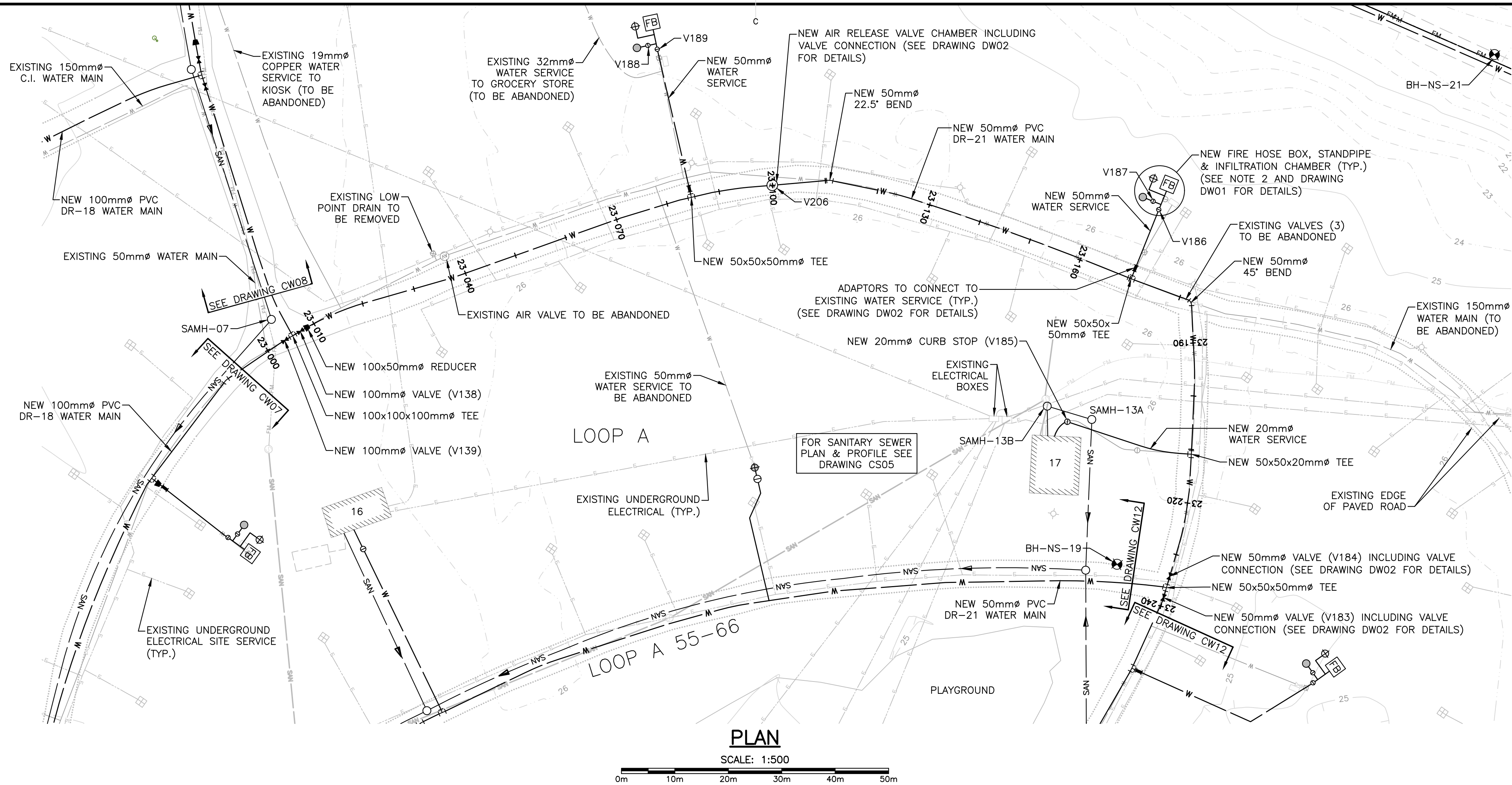
project	TERRA NOVA NATIONAL PARK UTILITY SYSTEMS RECAPITALIZATION PHASE 3	proj
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drawing	BUILDINGS 24 & 25 WATER MAIN PLAN & PROFILE STA. 20+000 TO 20+060	dessin
---------	--	--------

designed	J. BABIN	conçu
date	2021-02-26	
drawn	J. MUNN/S. ALLAIN	dessiné
date	2021-02-26	
approved	A. MELANSON	approuvé
date	2021-02-26	
Tender		Soumission

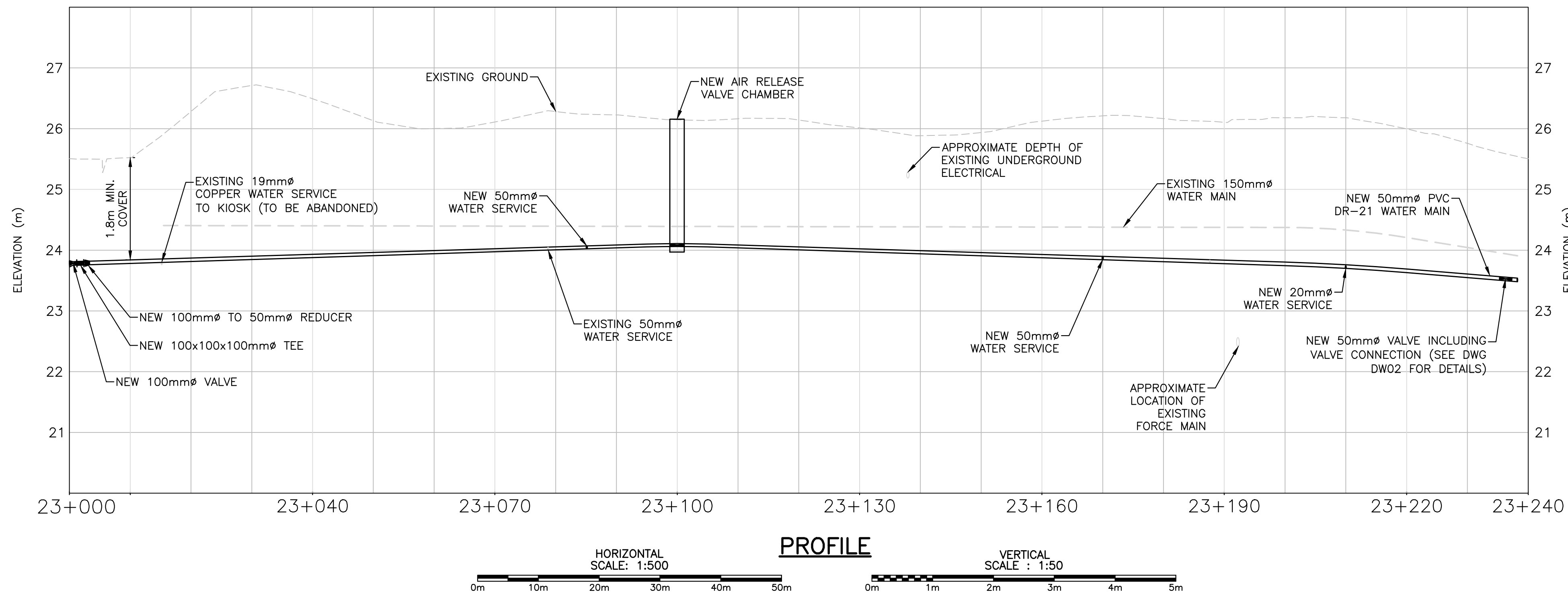
PCA Project Manager	Administrateur de projets APC
project number	no. du projet
1716	
drawing no.	no. du dessin
CW13	





PLAN

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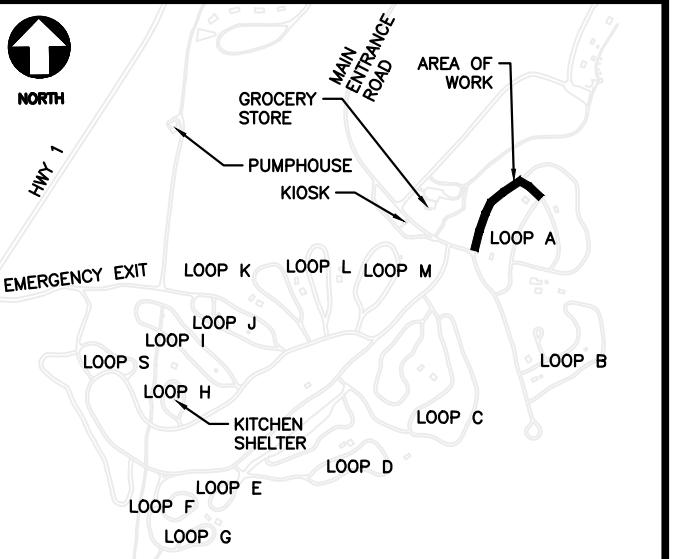


PROFILE

HORIZONTAL SCALE: 1:500

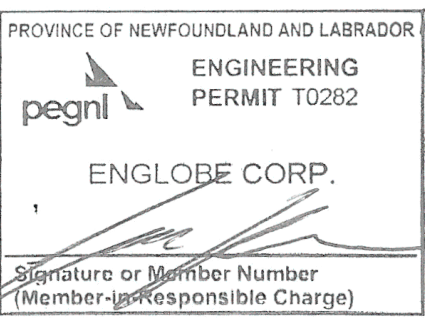
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KEY PLAN



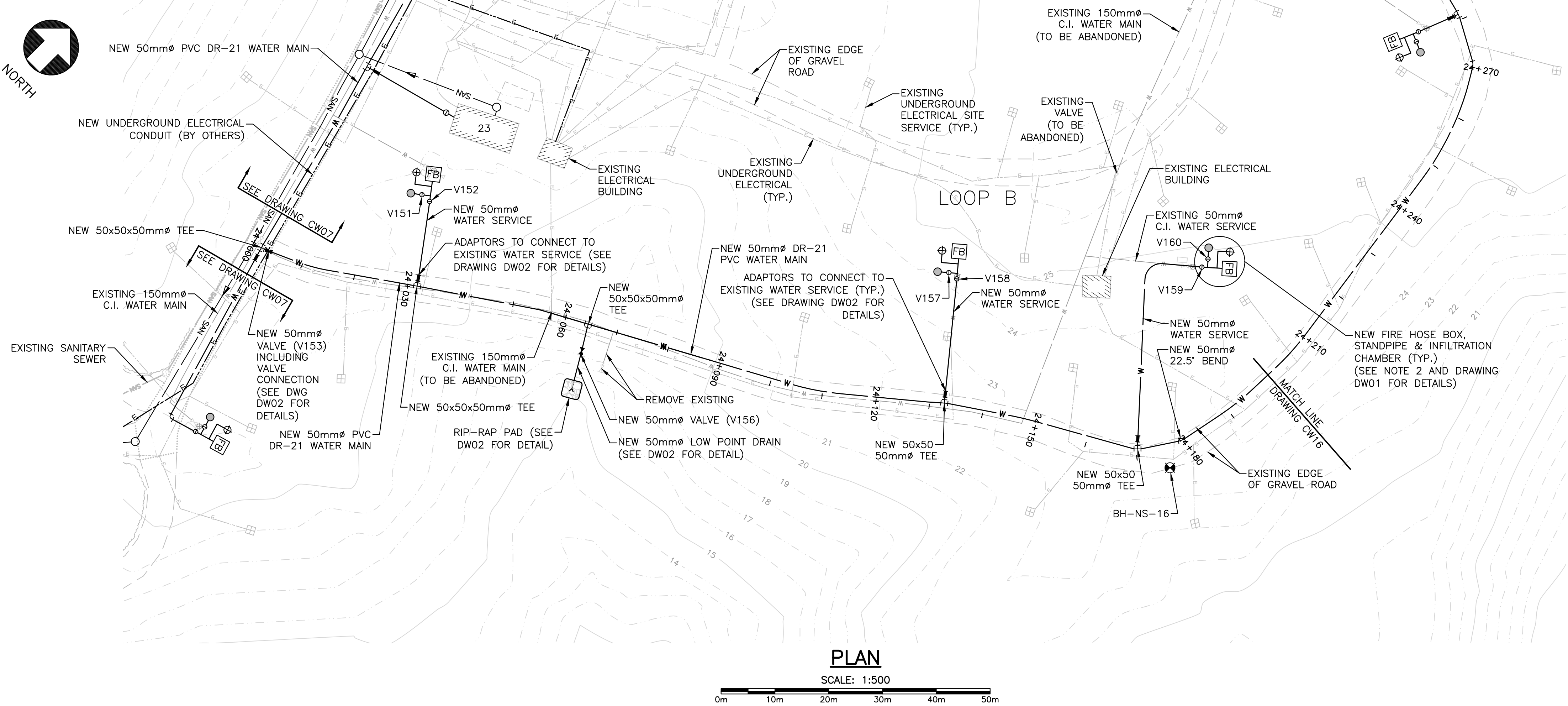
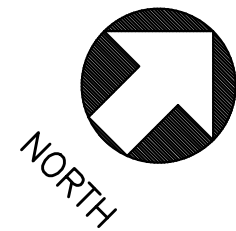
NOTES:

- SEE GENERAL NOTES AND LEGEND ON DRAWING CW02.
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0.0	ISSUED FOR TENDER	05/31 2021
revisions		date
project	TERRA NOVA NATIONAL PARK UTILITY SYSTEMS RECAPITALIZATION PHASE 3	
drawing	CAMPGROUND ROAD 4 TO LOOP A WATER MAIN PLAN & PROFILE STA. 23+000 TO 23+240	
designed	J. BABIN	conçu
date	2021-02-26	
drawn	J. MUNN/S. ALLAIN	dessiné
date	2021-02-26	
approved	A. MELANSON	approuvé
date	2021-02-26	
Tender		Soumission
PCA Project Manager	Administrateur de projets APC	
project number	1716	
drawing no.	CW14	

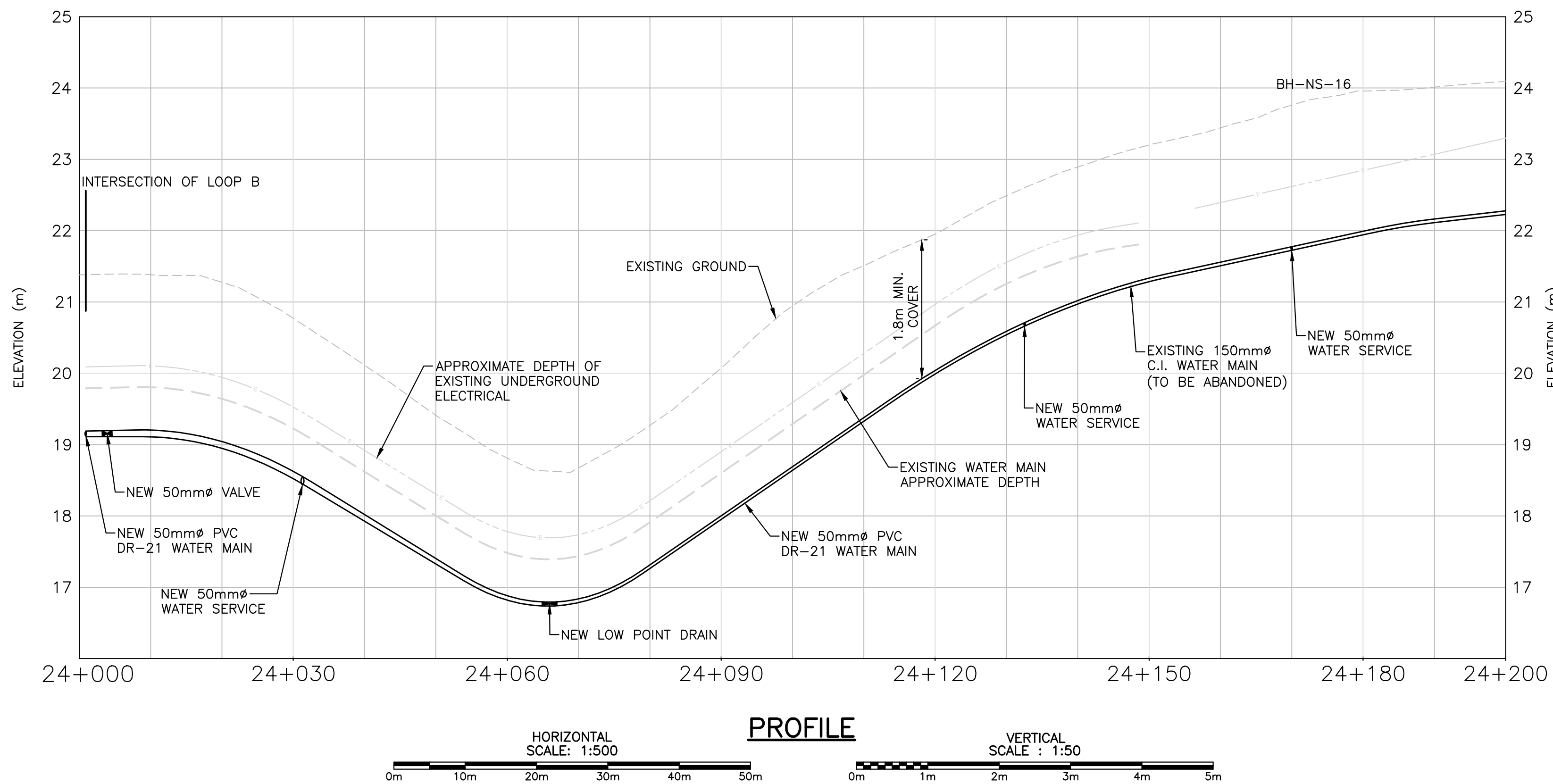




PLAN

SCALE: 1:500

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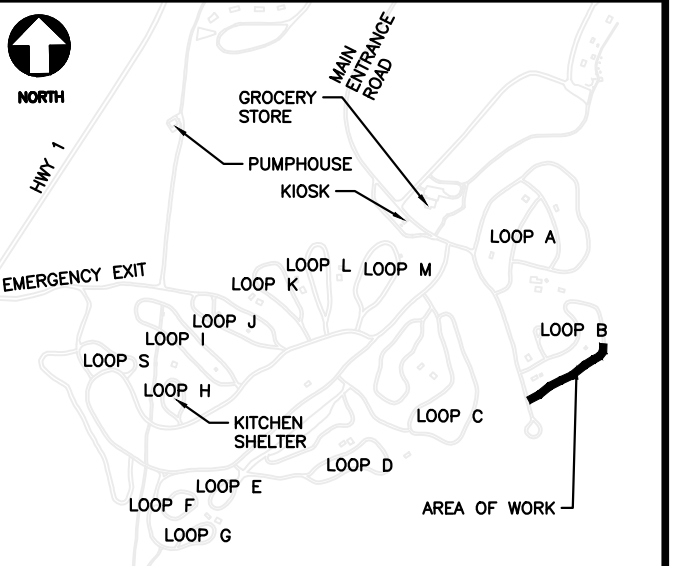
PROFILE

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VERTICAL SCALE: 1:50

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KEY PLAN



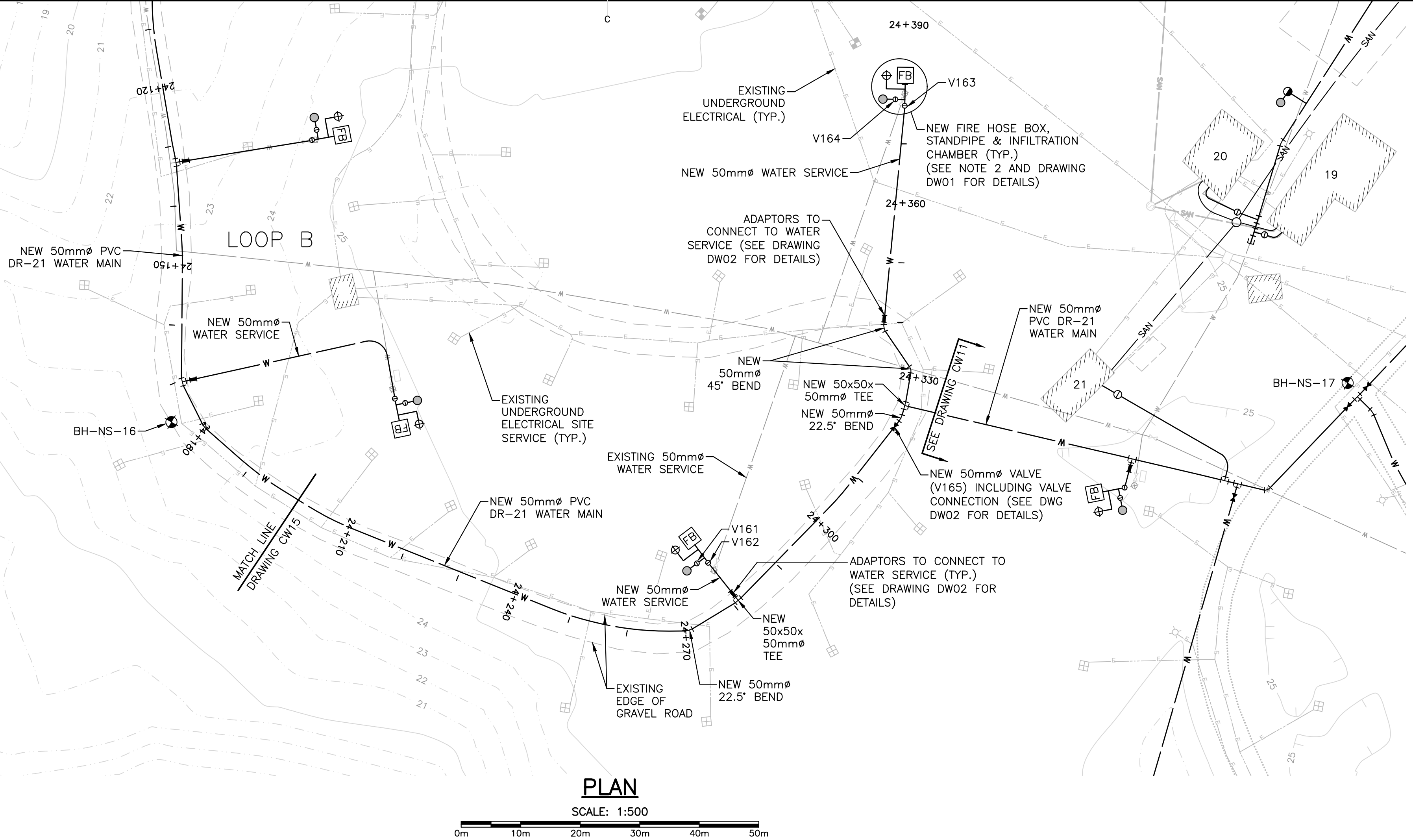
NOTES:

- SEE GENERAL NOTES AND LEGEND ON DRAWING CW02.
- LOCATION OF WATER SERVICE LINES TO FIRE BOXES, STANDPIPES, WASHROOMS, COOK SHELTERS ETC. ARE APPROXIMATE. EXACT PATH OF WATER SERVICE LINE SHALL BE DETERMINED IN THE FIELD BY THE DEPARTMENTAL REPRESENTATIVE SUCH THAT IMPACTS TO TREES ARE LIMITED.
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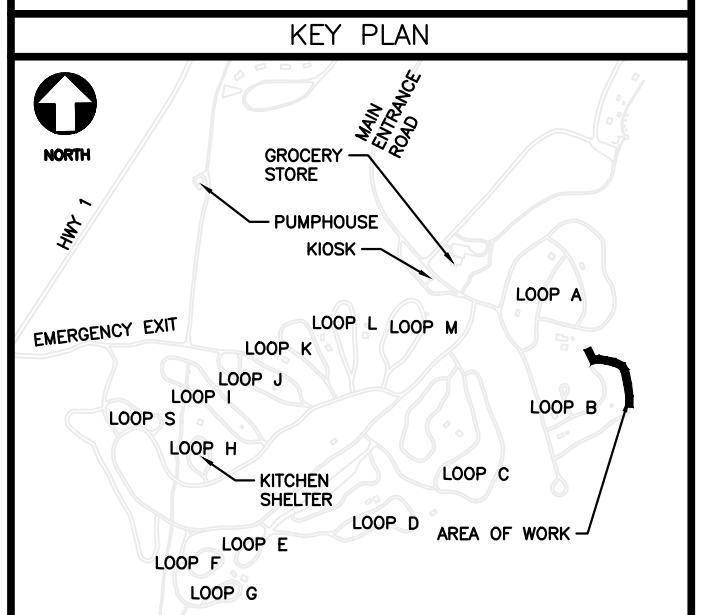
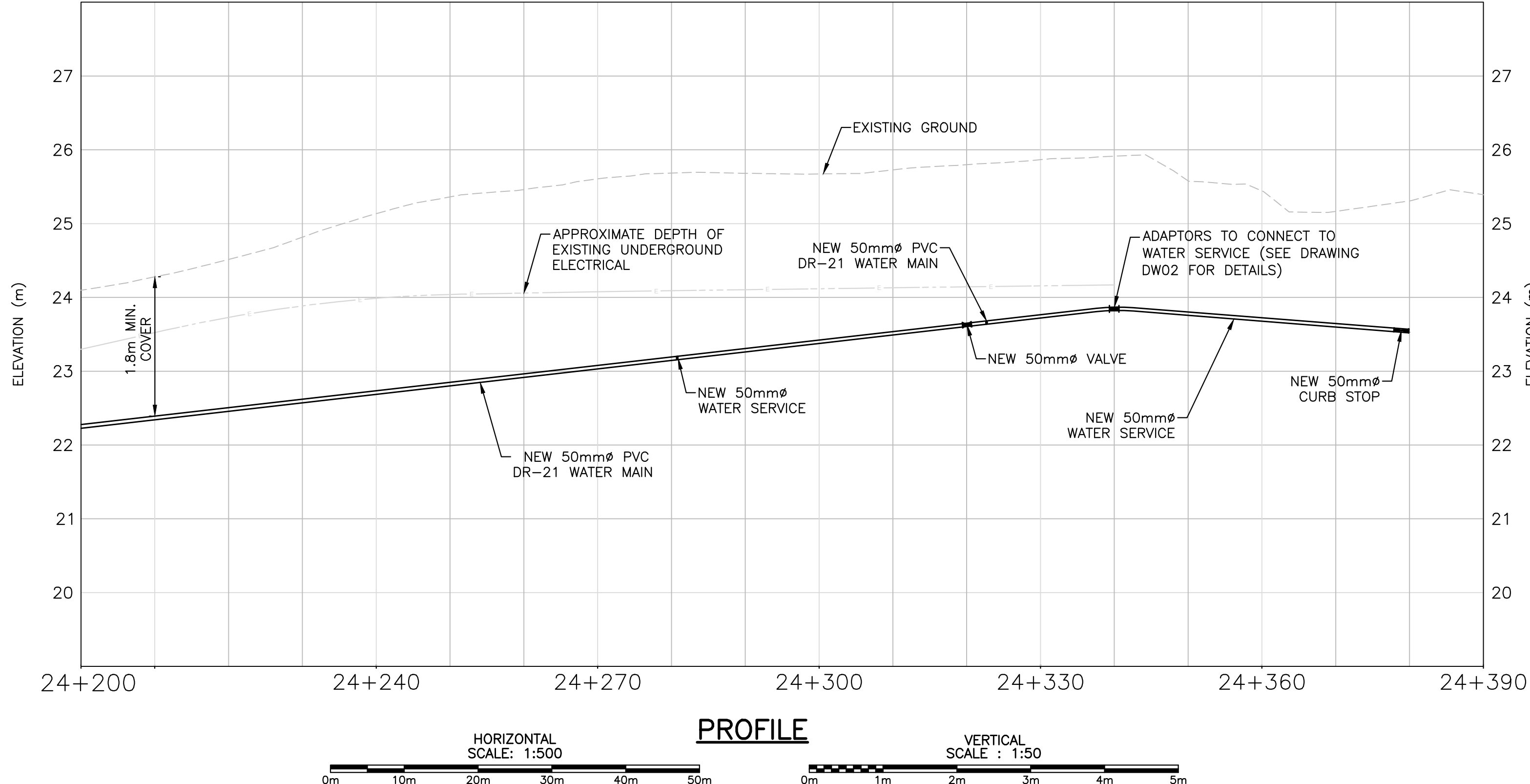


0.0	ISSUED FOR TENDER	05/31 2021
revisions		date
project	TERRA NOVA NATIONAL PARK UTILITY SYSTEMS RECAPITALIZATION PHASE 3	
drawing	LOOP B WATER MAIN PLAN & PROFILE STA. 24+000 TO 24+200	
designed	J. BABIN	conçu
date	2021-02-26	
drawn	J. MUNN/S. ALLAIN	dessiné
date	2021-02-26	
approved	A. MELANSON	approuvé
date	2021-02-26	
Tender		Soumission
PCA Project Manager	Administrateur de projets APC	
project number	1716	
drawing no.	CW15	





PROVINCE OF NEWFOUNDLAND AND LABRADOR  
ENGINEERING  
PERMIT T0282  
ENGLOBE CORP.  
Signature or Member Number  
(Member-jeunes possible Charge)

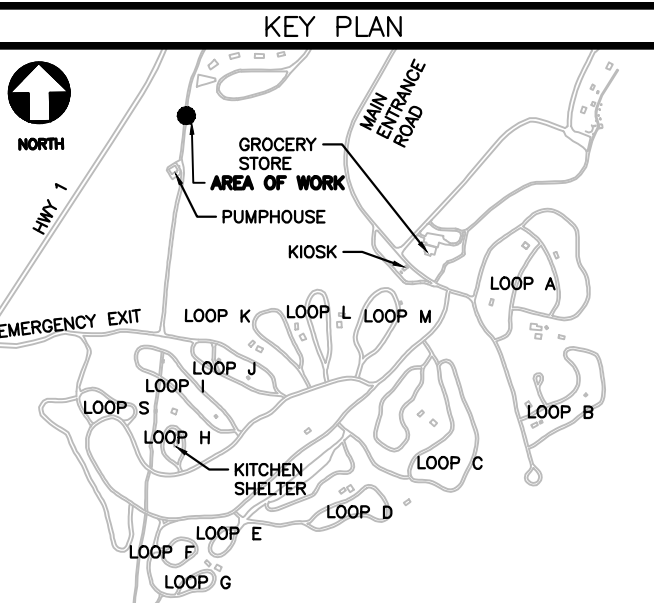


- NOTES:
- SEE GENERAL NOTES AND LEGEND ON DRAWING CW02.
  - LOCATION OF WATER SERVICE LINES TO FIRE BOXES, STANDPIPES, WASHROOMS, COOK SHELTERS ETC. ARE APPROXIMATE. EXACT PATH OF WATER SERVICE LINE SHALL BE DETERMINED IN THE FIELD BY THE DEPARTMENTAL REPRESENTATIVE SUCH THAT IMPACTS TO TREES ARE LIMITED.
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0.0	ISSUED FOR TENDER	05/31 2021
revisions		date
project	TERRA NOVA NATIONAL PARK UTILITY SYSTEMS RECAPITALIZATION PHASE 3	
drawing	LOOP B WATER MAIN PLAN & PROFILE STA. 24+200 TO 24+390	
designed	J. BABIN	conçu
date	2021-02-26	
drawn	J. MUNN/S. ALLAIN	dessiné
date	2021-02-26	
approved	A. MELANSON	approuvé
date	2021-02-26	
Tender	Soumission	
PCA Project Manager	Administrateur de projets APC	
project number	1716	
drawing no.	CW16	





NOTE:

1. NEW ULTRASONIC LEVEL CONTROLLER SHALL BE MOUNTED INSIDE EXISTING PUMPHOUSE. PROVIDE NEW 15A-1P BREAKER IN NEAREST AVAILABLE ELECTRICAL PANEL, TYPE AND RATING TO MATCH EXISTING. PROVIDE  $\frac{3}{4}$  AWG RW90 WIRE IN 21mm EMT CONDUIT FROM ULTRASONIC LEVEL CONTROLLER TO PANEL c/w HANGERS AND SUPPORTS AS NECESSARY. RUN ALONG BUILDING LINES. SEAL PENETRATIONS.



0.0	ISSUED FOR TENDER	05/31/2021
revisions		date

project **FEED: NOW** project

project

**TERRA NOVA  
NATIONAL PARK  
UTILITY SYSTEMS  
RECAPITALIZATION  
PHASE 3**

project

TERRA NOVA NATIONAL PARK

drawing                      dessin

## WATER RESERVOIR SITE PLAN

designed	S. SAVOIE	conqu
date	2019-03-13	
drawn	S. LEBLANC	dessiné
date	2019-03-13	
approved	S. SAVOIE	approuvé
date	2019-03-21	
Tender		Soumission

PCA Project Manager      Administrateur de projets APC

project number	no. du projet
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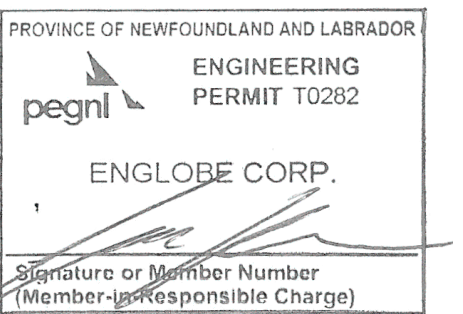
1716

drawing no. no. du dessin

CW17



- NOTES:
1. REFER TO SPECIFICATIONS FOR WATER RESERVOIR DETAILS.
  2. REFER TO SPECIFICATIONS FOR WATER RESERVOIR MIXING VALVE SYSTEM.
  3. REFER TO SPECIFICATIONS FOR WATER RESERVOIR LOGO AND TEXT.
  4. WATER RESERVOIR, LADDER, HANDRAILS, DOME ROOF, OVERFLOW WEIR, ACCESS HATCHES, AND MANWAYS SHALL BE SUPPLIED BY WATER RESERVOIR MANUFACTURER. SEE SPECIFICATIONS.

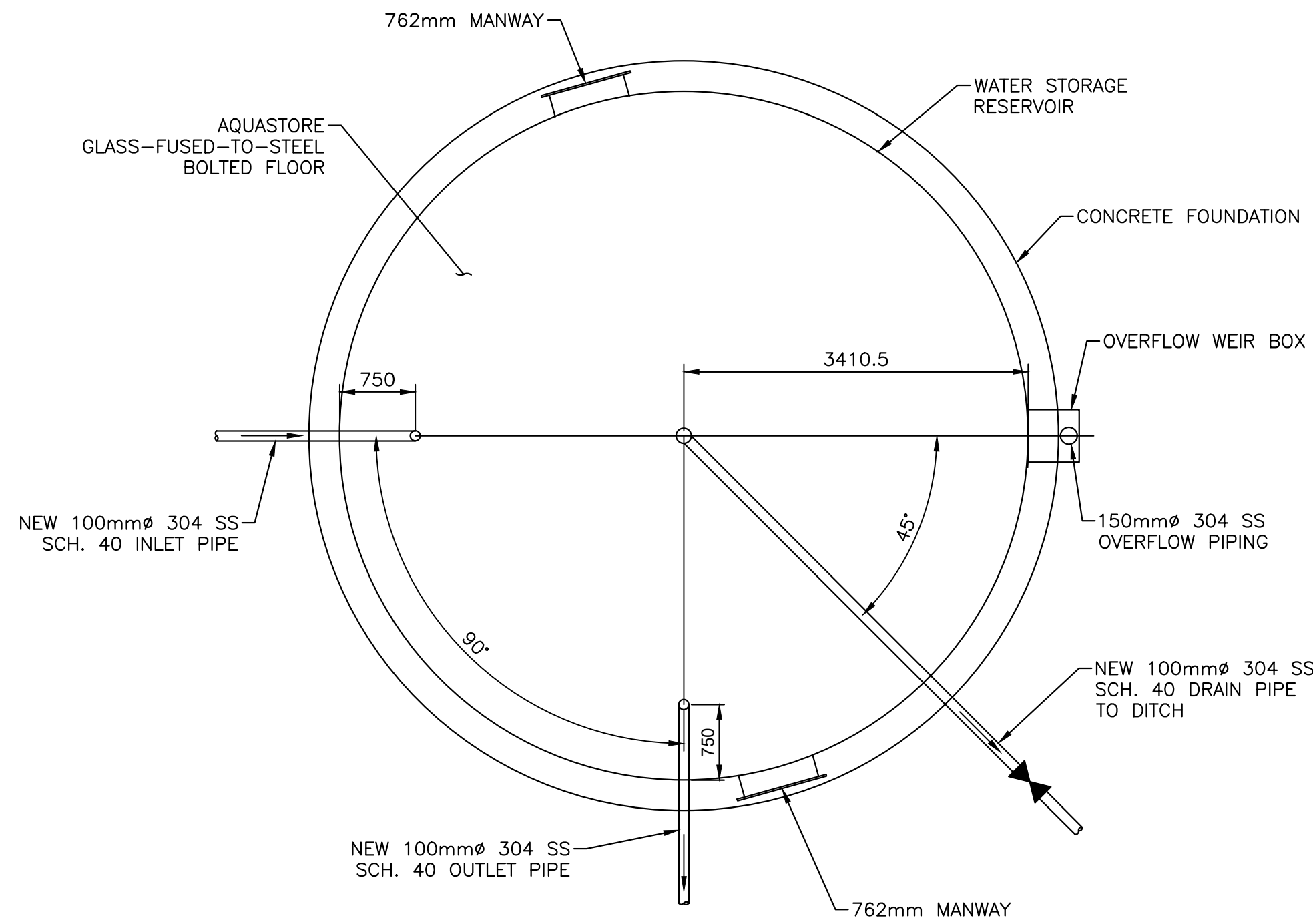


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revisions		date

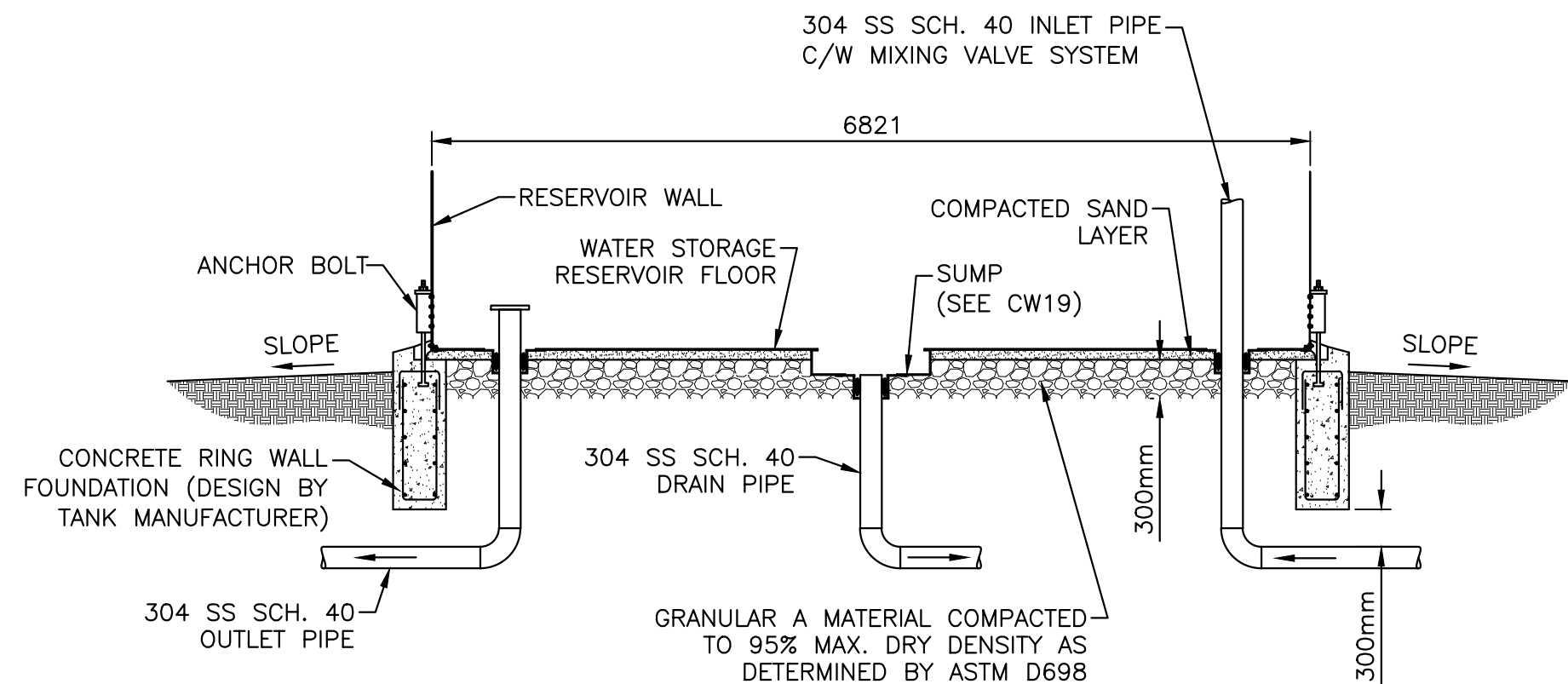
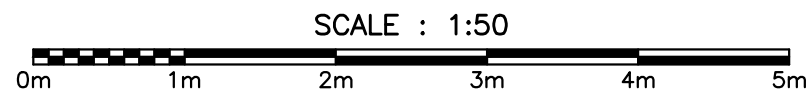
project	TERRA NOVA NATIONAL PARK UTILITY SYSTEMS RECAPITALIZATION PHASE 3	proj
drawing	TERRA NOVA NATIONAL PARK	dessin

WATER RESERVOIR  
TYPICAL INSTALLATION  
DETAILS

designed	S. SAVOIE	conçu
date	2019-03-13	
drawn	S. LEBLANC	dessiné
date	2019-03-13	
approved	S. SAVOIE	approuvé
date	2019-03-21	
Tender		Soumission
PCA Project Manager	Administrateur de projets APC	
project number	no. du projet	
	1716	
drawing no.	no. du dessin	
	CW18	

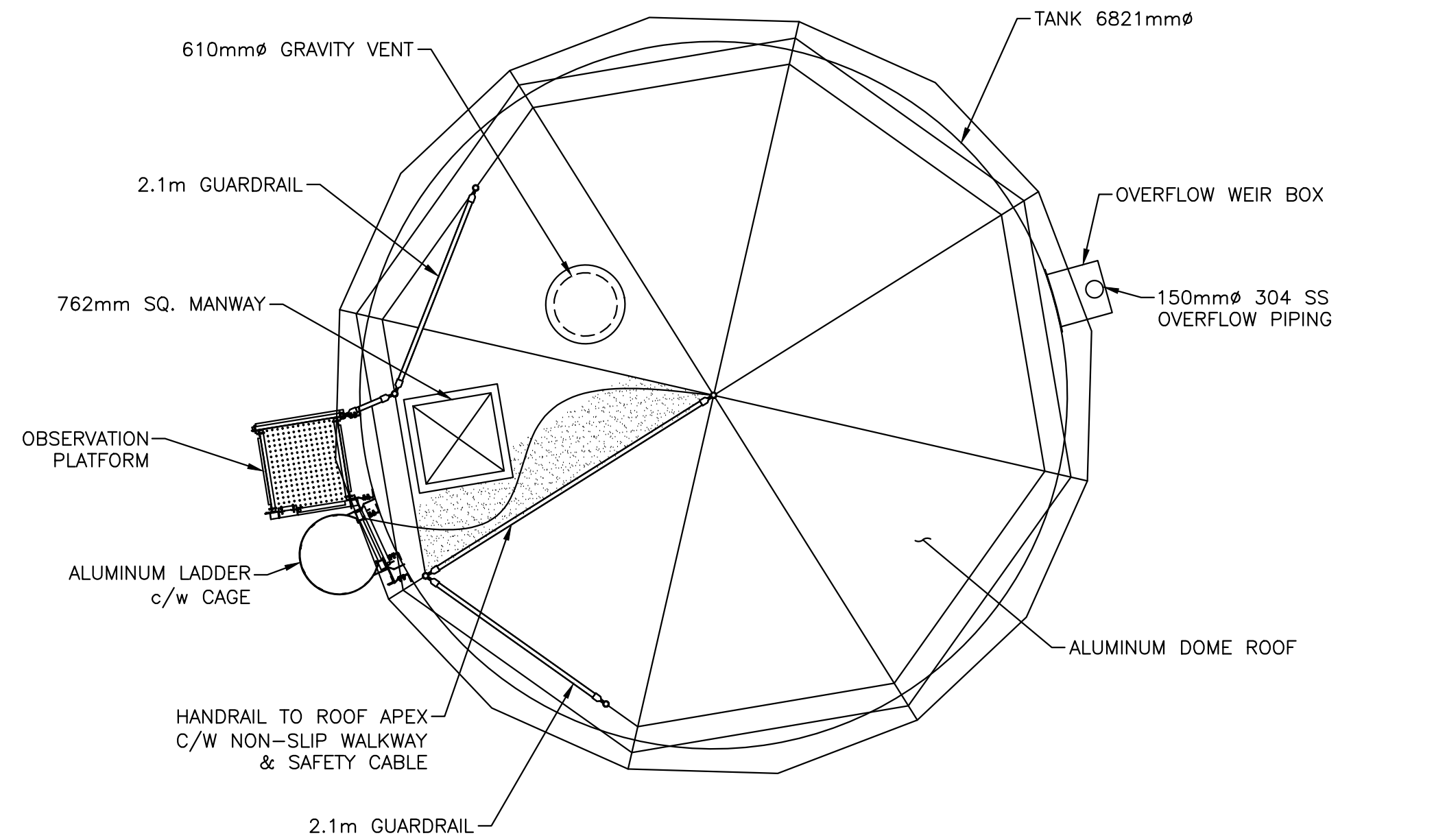
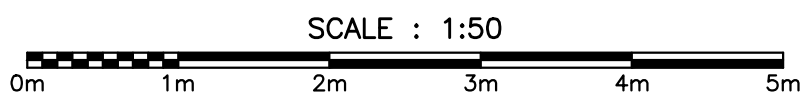


WATER STORAGE RESERVOIR  
PIPE LOCATIONS - PLAN VIEW

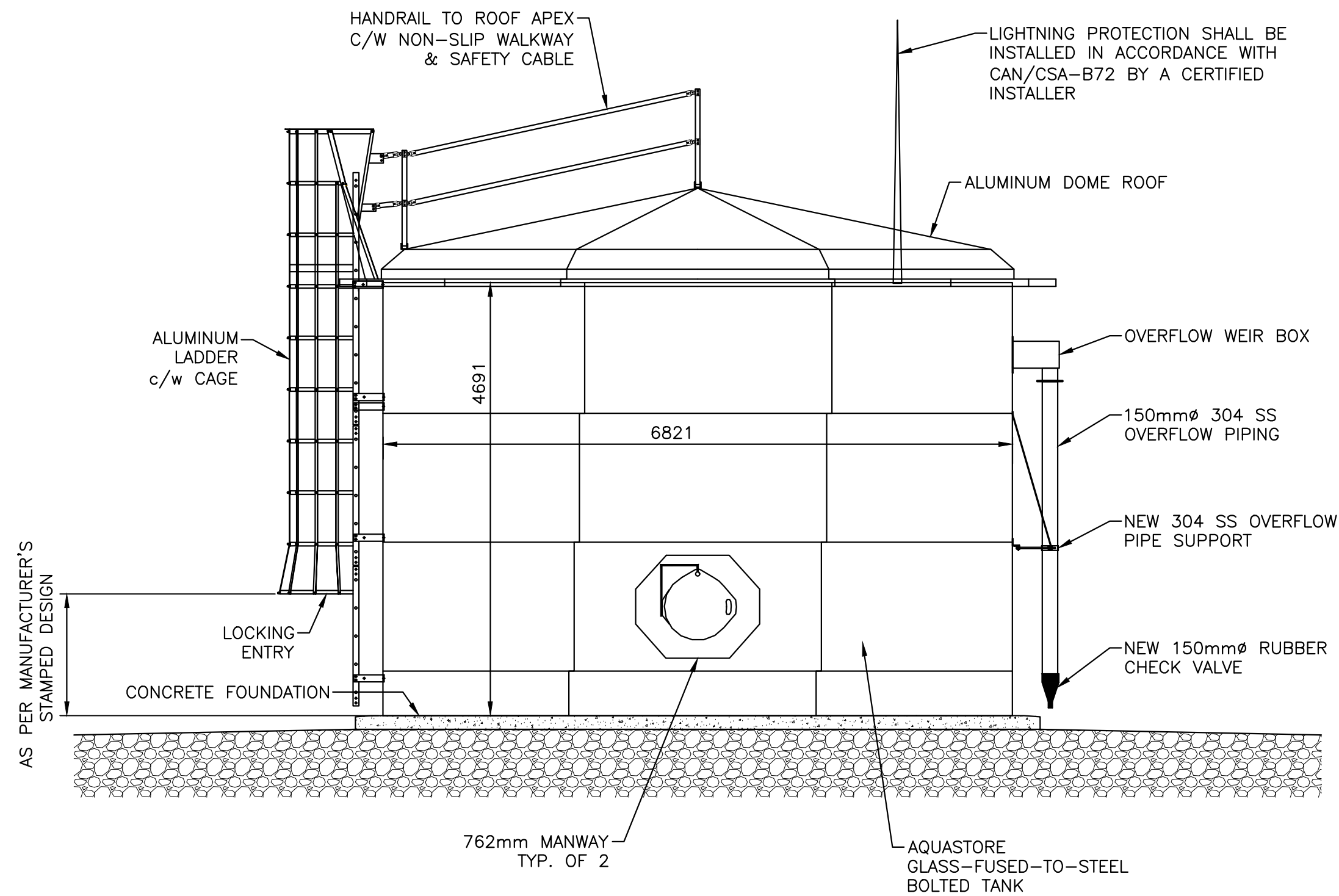
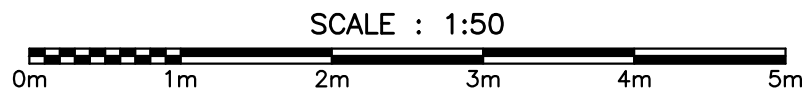


NOTE: FOR PIPE LOCATIONS AND DIMENSIONS SEE PLAN VIEW ABOVE AND DRAWING CW19.

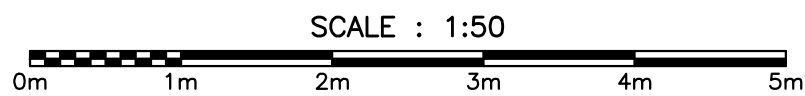
TYPICAL FOUNDATION SECTION



WATER TANK - PLAN



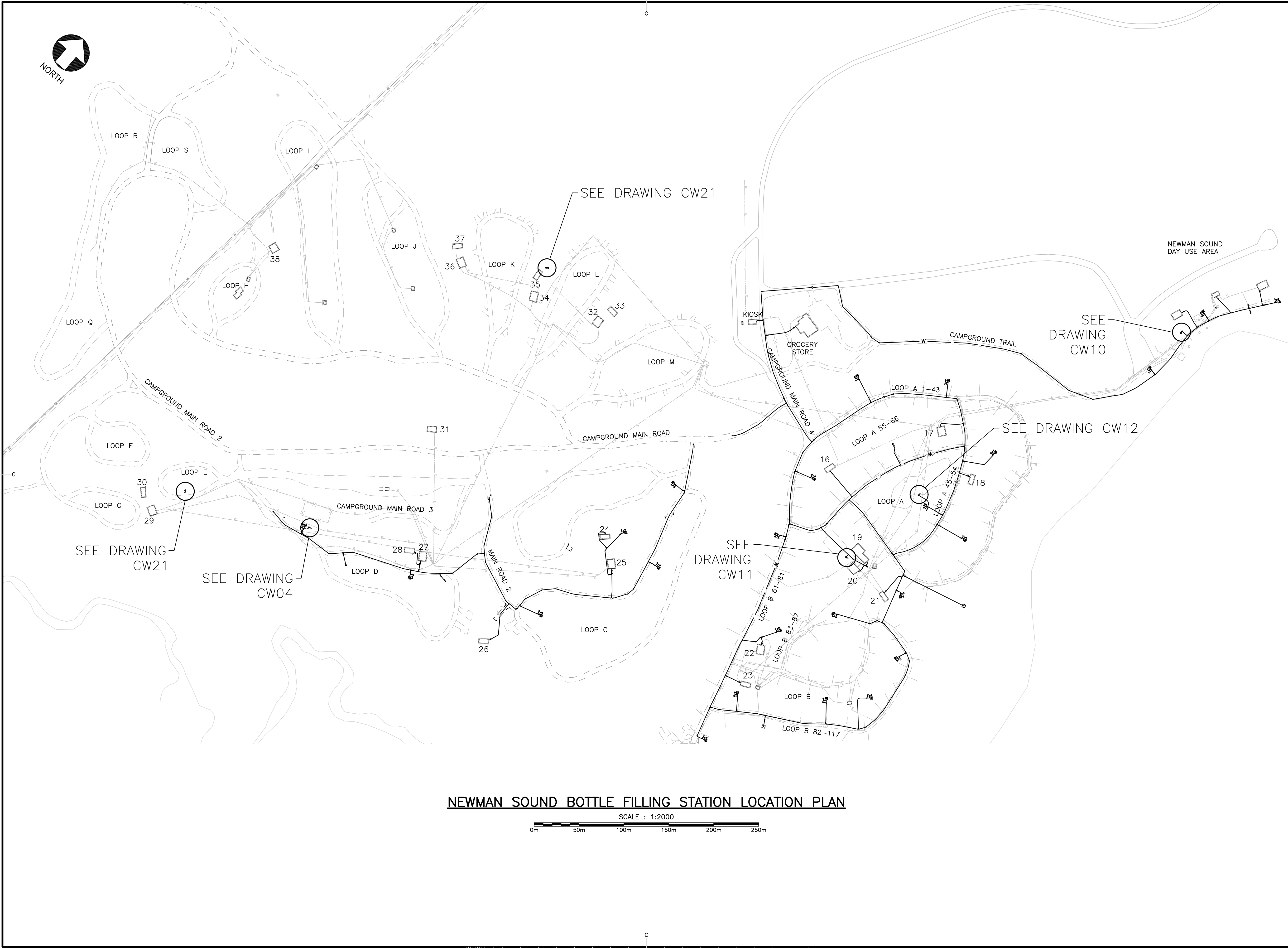
WATER TANK - ELEVATION
















Parks CanadaParcs Canada




PROVINCE OF NEWFOUNDLAND AND LABRADOR

 ENGINEERING PERMIT T0282

ENGLOBE CORP.

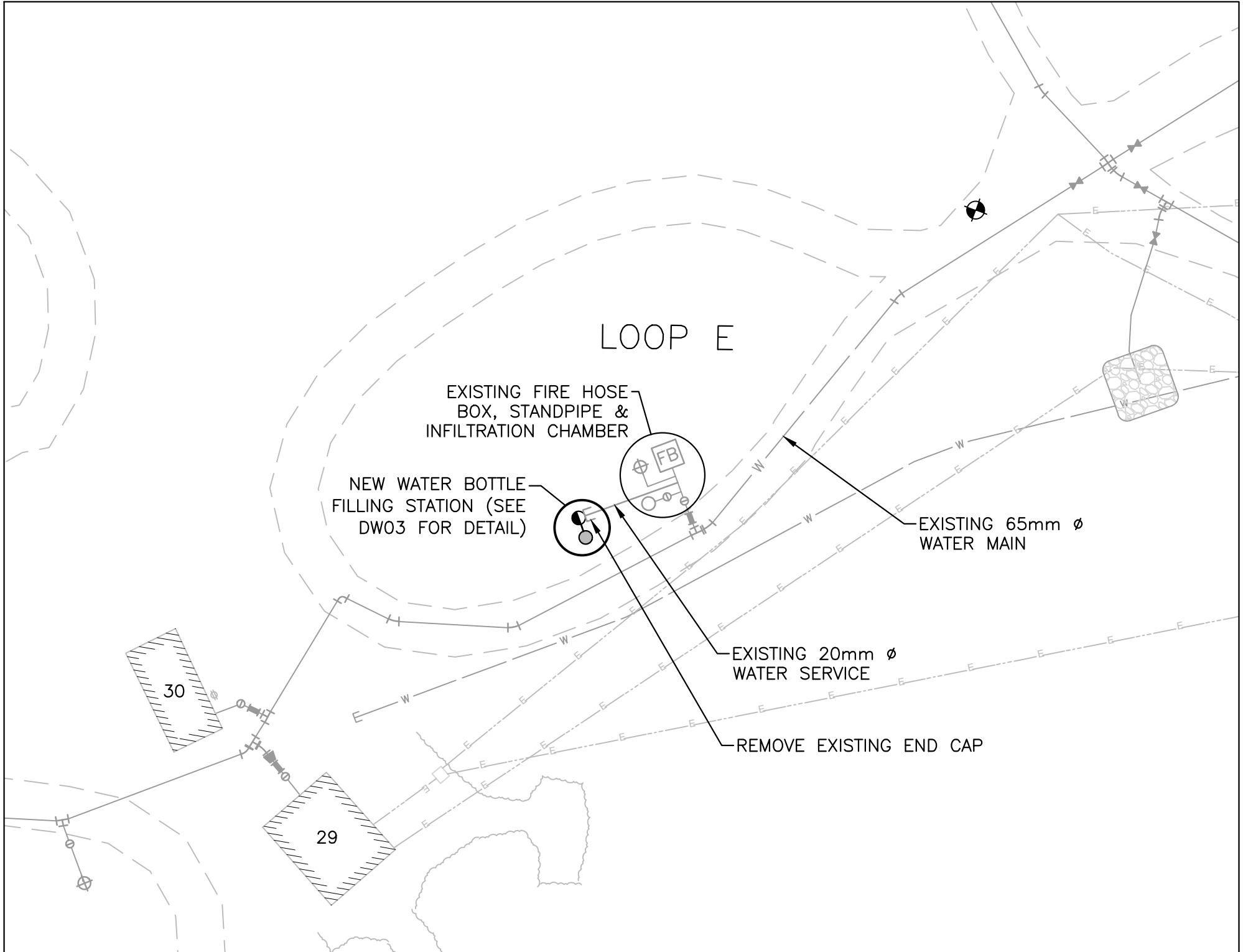
Signature or Member Number (Member-responsible Charge)



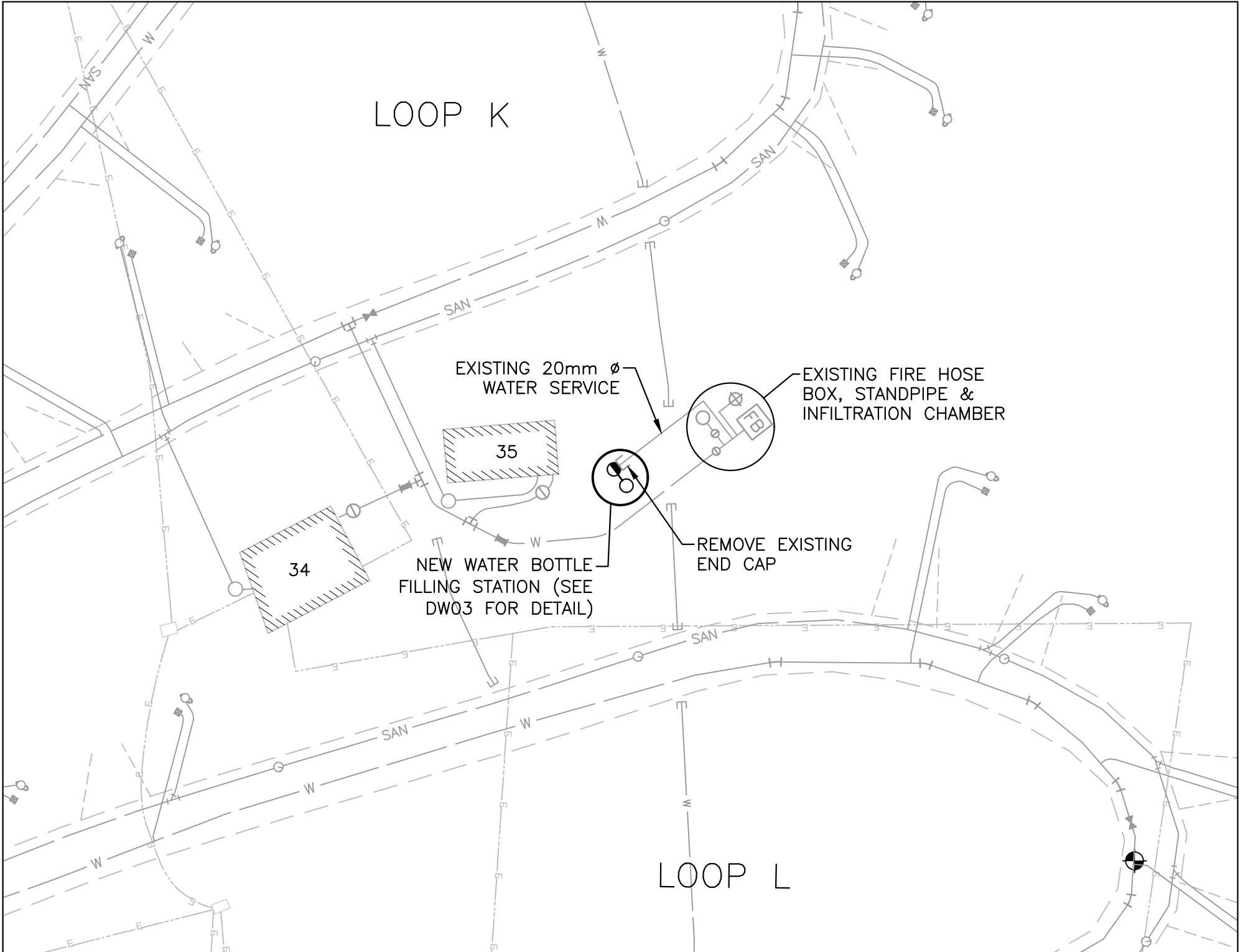
0.0	ISSUED FOR TENDER	05/31 2021
revisions		date
project	TERRA NOVA NATIONAL PARK UTILITY SYSTEMS RECAPITALIZATION PHASE 3	
drawing	TERRA NOVA NATIONAL PARK	
NEWMAN SOUND BOTTLE FILLING STATIONS LOCATION PLAN		
designed	A. MELANSON	conçu
date	2021-02-26	
drawn	S. ALLAIN	dessiné
date	2021-02-26	
approved	A. MELANSON	approuvé
date	2021-02-26	
Tender	Soumission	
PCA Project Manager	Administrateur de projets APC	
project number	no. du projet	
1716		
drawing no.	no. du dessin	
CW20		



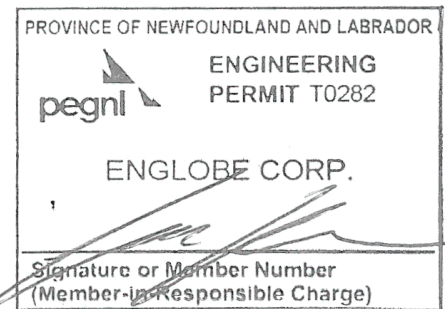
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**PLAN**  
SCALE: 1:500  
0m 10m 20m 30m 40m 50m



**PLAN**  
SCALE: 1:500  
0m 10m 20m 30m 40m 50m



0.0	ISSUED FOR TENDER	05/31/2021
revisions		date

project TERRA NOVA NATIONAL PARK UTILITY SYSTEMS RECAPITALIZATION PHASE 3 projet

TERRA NOVA NATIONAL PARK

drawing dessin

**NEWMAN SOUND  
BOTTLE FILLING STATIONS  
SITE PLANS**

designed A. MELANSON conçu

date 2021-02-26

drawn S. ALLAIN dessiné

date 2021-02-26

approved A. MELANSON approuvé

date 2021-02-26

Tender Soumission

PCA Project Manager Administrateur de projets APC

project number no. du projet

1716

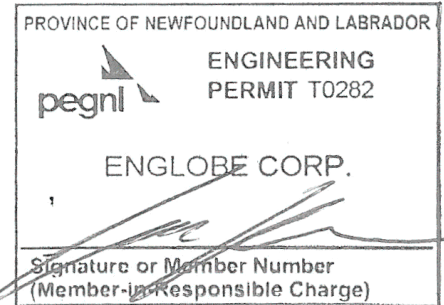
drawing no. no. du dessin

CW21



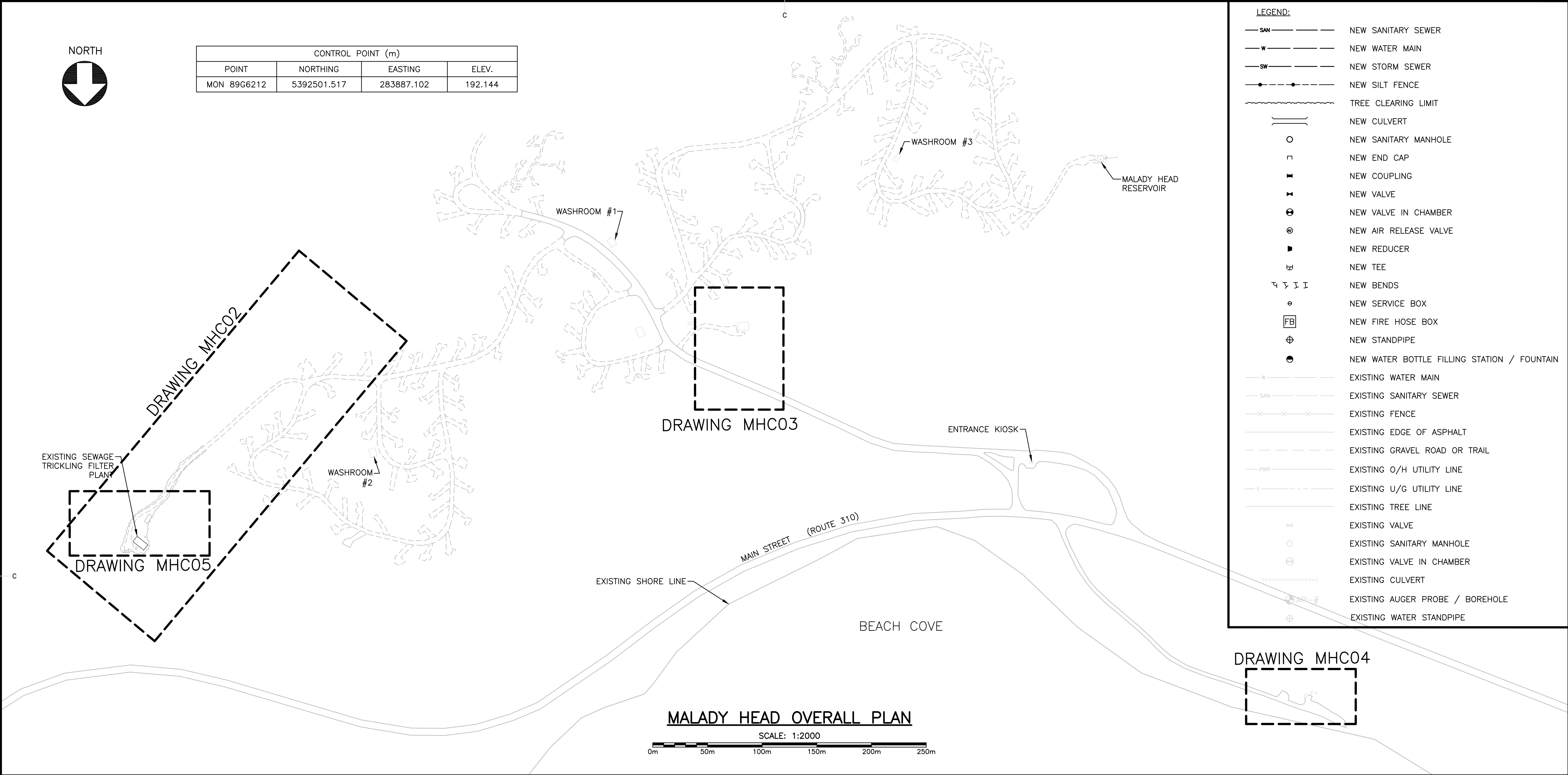
NEWMAN SOUND VALVE TABLE					
POINT No.	VALVE	DESCRIPTION	EASTING	NORTHING	DRAWING No.
115	V115	38mm Ø CURB STOP	280256.2783	5380490.7210	CW04
116	V116	50mmØ CURB STOP	280258.0392	5380490.0437	CW04
117	V117	20mm Ø CURB STOP	280318.6873	5380491.7807	CW04
118	V118	50mm Ø CURB STOP	280380.4112	5380530.5594	CW04
119	V119	38mm Ø CURB STOP	280382.2924	5380530.4155	CW04
120	V120	20mm Ø CURB STOP	280369.9675	5380551.6564	CW04
121	V121	38mm Ø CURB STOP	280380.7202	5380547.3111	CW04
122	V122	50mm Ø CURB STOP	280413.9228	5380549.5768	CW04
123	V123	65mm Ø VALVE	280426.9731	5380599.4413	CW04
124	V124	65mm Ø VALVE	280430.2311	5380599.6398	CW05
125	V125	65mm Ø VALVE	280417.7826	5380617.5528	CW05
126	V126	50mm Ø CURB STOP	280516.7996	5380588.2562	CW05
127	V127	38mm Ø CURB STOP	280517.3728	5380590.0537	CW05
128	V128	20mm Ø CURB STOP	280514.9849	5380705.3837	CW13
129	V129	38mm Ø CURB STOP	280548.5610	5380679.0856	CW13
130	V130	38mm Ø CURB STOP	280529.2309	5380718.9560	CW13
131	V131	50mm Ø CURB STOP	280529.8072	5380717.1595	CW13
132	V132	38mm Ø CURB STOP	280582.1590	5380716.2278	CW06
133	V133	50mm Ø CURB STOP	280581.2811	5380714.5578	CW06
134	V134	38mm Ø CURB STOP	280540.9667	5380796.2540	CW06
135	V135	50mm Ø CURB STOP	280542.0160	5380797.8219	CW06
136	V136	100mm Ø VALVE	280572.3250	5380948.0442	CW08
137	V137	100mm Ø VALVE	280577.1788	5380946.1764	CW08
138	V138	100mm Ø VALVE	280624.8906	5380934.4668	CW14
139	V139	100mm Ø VALVE	280624.6415	5380931.0824	CW14
140	V140	38mm Ø CURB STOP	280649.2728	5380903.0506	CW07
141	V141	50mm Ø CURB STOP	280648.7930	5380901.2260	CW07
142	V142	100mm Ø VALVE	280660.7604	5380851.9673	CW07
143	V143	65mm Ø VALVE	280665.4663	5380845.6251	CW07
144	V144	65mm Ø VALVE	280666.4069	5380847.7548	CW11
145	V145	38mm Ø CURB STOP	280665.3115	5380828.9401	CW07
146	V146	50mm Ø CURB STOP	280665.5983	5380830.8049	CW07
147	V147	38mm Ø CURB STOP	280731.3664	5380747.2926	CW07
148	V148	50mm Ø CURB STOP	280732.3663	5380745.6926	CW07
149	V149	20mm Ø CURB STOP	280728.2110	5380726.2005	CW07
150	V150	20mm Ø CURB STOP	280737.1179	5380676.9245	CW07
151	V151	38mm Ø CURB STOP	280744.7146	5380662.9473	CW15
152	V152	50mm Ø CURB STOP	280746.5977	5380663.0637	CW15
153	V153	50mm Ø VALVE	280731.8603	5380635.4307	CW15
154	V154	38mm Ø CURB STOP	280746.6706	5380603.8830	CW07
155	V155	50mm Ø CURB STOP	280746.0995	5380602.0849	CW07
156	V156	50mm Ø VALVE	280786.2436	5380663.3878	CW15
157	V157	38mm Ø CURB STOP	280824.2091	5380721.9757	CW15
158	V158	50mm Ø CURB STOP	280826.0837	5380722.1885	CW15
159	V159	50mm Ø CURB STOP	280856.7564	5380755.9607	CW15
160	V160	38mm Ø CURB STOP	280856.4949	5380757.8291	CW15
161	V161	38mm Ø CURB STOP	280855.3335	5380813.7632	CW16

NEWMAN SOUND VALVE TABLE					
POINT No.	VALVE	DESCRIPTION	EASTING	NORTHING	DRAWING No.
162	V162	50mm Ø CURB STOP	280854.3055	5380815.3451	CW16
163	V163	50mm Ø CURB STOP	280771.2890	5380805.5465	CW16
164	V164	38mm Ø CURB STOP	280771.1277	5380803.6668	CW16
165	V165	50mm Ø VALVE	280818.8608	5380831.0274	CW16
166	V166	20mm Ø CURB STOP	280758.8100	5380862.9030	CW11
167	V167	20mm Ø CURB STOP	280759.8320	5380868.7660	CW11
168	V168	20mm Ø CURB STOP	280795.4055	5380860.8296	CW11
169	V169	38mm Ø CURB STOP	280810.2496	5380869.8765	CW11
170	V170	50mm Ø CURB STOP	280808.3777	5380869.6416	CW11
171	V171	50mm Ø VALVE	280800.6320	5380886.3424	CW11
172	V172	50mm Ø VALVE	280777.8807	5380895.2963	CW11
173	V173	50mm Ø VALVE	280773.2596	5380896.4307	CW11
174	V174	20mm Ø CURB STOP	280665.0536	5380920.7064	CW11
175	V175	38mm Ø CURB STOP	280821.1174	5380961.1737	CW12
176	V176	50mm Ø CURB STOP	280820.3974	5380959.4298	CW12
177	V177	50mm Ø CURB STOP	280771.1769	5380962.2572	CW12
178	V178	38mm Ø CURB STOP	280770.4320	5380960.5238	CW12
179	V179	AIR RELEASE VALVE	280775.9334	5381003.5978	CW12
180	V180	20mm Ø CURB STOP	280781.5707	5381017.0010	CW12
181	V181	38mm Ø CURB STOP	280785.9635	5381052.9881	CW12
182	V182	50mm Ø CURB STOP	280787.5402	5381051.9521	CW12
183	V183	50mm Ø VALVE	280758.4150	5381038.1813	CW12
184	V184	50mm Ø VALVE	280755.8162	5381041.4109	CW12
185	V185	20mm Ø CURB STOP	280721.1295	5381042.3263	CW14
186	V186	50mm Ø CURB STOP	280698.4071	5381079.1238	CW14
187	V187	38mm Ø CURB STOP	280696.5206	5381079.1516	CW14
188	V188	38mm Ø CURB STOP	280618.3829	5381018.4323	CW14
189	V189	50mm Ø CURB STOP	280619.9560	5381019.4739	CW14
190	V190	20mm Ø CURB STOP	280696.6293	5380988.6700	CW12
191	V191	38mm Ø CURB STOP	280526.8984	5381016.0301	CW08
192	V192	20mm Ø CURB STOP	280491.5094	5380996.4140	CW08
193	V193	65mm Ø VALVE	280572.7857	5381067.4860	CW09
194	V194	38mm Ø CURB STOP	280860.0693	5381237.7698	CW10
195	V195	50mm Ø CURB STOP	280861.4199	5381239.0872	CW10
196	V196	20mm Ø CURB STOP	280844.8528	5381312.3846	CW10
197	V197	38mm Ø CURB STOP	280864.2676	5381323.6642	CW10
198	V198	50mm Ø CURB STOP	280865.7082	5381324.8267	CW10
199	V199	20mm Ø CURB STOP	280864.9770	5381347.7530	CW10
200	V200	20mm Ø CURB STOP	280894.6788	5381384.0025	CW10
201	V201	38mm Ø CURB STOP	280914.4374	5381387.2580	CW10
202	V202	50mm Ø CURB STOP	280915.0932	5381385.4891	CW10
203	V203	100mm Ø VALVE	280058.5636	5381315.7122	CW17
204	V204	100mm Ø VALVE	280062.5030	5381311.0280	CW17
205	V205	20mm Ø CURB STOP	280496.1415	5380533.1574	CW05
206	V206	AIR RELEASE VALVE	280653.1662	5381022.4977	CW14
207	V207	100mm Ø VALVE	280065.4787	5381311.9796	CW17
208	V208	AIR RELEASE VALVE	280513.2012	5381063.3851	CW08



0.0	ISSUED FOR TENDER	05/31 2021
revisions		date
project	project	
TERRA NOVA NATIONAL PARK UTILITY SYSTEMS RECAPITALIZATION PHASE 3		
TERRA NOVA NATIONAL PARK		
drawing	dessin	
NEWMAN SOUND VALVE TABLE		
designed	A. MELANSON	conçu
date	2021-02-26	
drawn	S. ALLAIN	dessiné
date	2021-02-26	
approved	A. MELANSON	approuvé
date	2021-02-26	
Tender	Soumission	
PCA Project Manager	Administrateur de projets APC	
project number	no. du projet	
1716		
drawing no.	no. du dessin	
CW22		





LEGEND:	
	NEW SANITARY SEWER
	NEW WATER MAIN
	NEW STORM SEWER
	NEW SILT FENCE
	TREE CLEARING LIMIT
	NEW CULVERT
	NEW SANITARY MANHOLE
	NEW END CAP
	NEW COUPLING
	NEW VALVE
	NEW VALVE IN CHAMBER
	NEW AIR RELEASE VALVE
	NEW REDUCER
	NEW TEE
	NEW BENDS
	NEW SERVICE BOX
	NEW FIRE HOSE BOX
	NEW STANDPIPE
	NEW WATER BOTTLE FILLING STATION / FOUNTAIN
	EXISTING WATER MAIN
	EXISTING SANITARY SEWER
	EXISTING FENCE
	EXISTING EDGE OF ASPHALT
	EXISTING GRAVEL ROAD OR TRAIL
	EXISTING O/H UTILITY LINE
	EXISTING U/G UTILITY LINE
	EXISTING TREE LINE
	EXISTING VALVE
	EXISTING SANITARY MANHOLE
	EXISTING VALVE IN CHAMBER
	EXISTING CULVERT
	EXISTING AUGER PROBE / BOREHOLE
	EXISTING WATER STANDPIPE

Parks CanadaParcs Canada

PROVINCE OF NEWFOUNDLAND AND LABRADOR

ENGINEERING PERMIT T0282

ENGLOBE CORP.

Signature or Member Number (Member-Responsible Charge)

08260Julien Babin2021-06-012021-06-012021-06-012021-06-01

PROFESSIONAL ENGINEER

PROFESSIONAL ENGINEER

0.0	ISSUED FOR TENDER	05/31 2021
revisions		date
project	TERRA NOVA NATIONAL PARK UTILITY SYSTEMS RECAPITALIZATION PHASE 3	
designed	A. MELANSON	conçu
date	2021-02-26	
drawn	S. ALLAIN	dessiné
date	2021-02-26	
approved	A. MELANSON	approuvé
date	2021-02-26	
Tender		Soumission
PCA Project Manager	Administrateur de projets APC	
project number		no. du projet
	1716	
drawing no.		no. du dessin
	MHC01	

- GENERAL NOTES:
1. EXISTING WATER MAIN, ELECTRICAL, SANITARY SEWER AND CAMPGROUND LAYOUT FROM INFORMATION ON ORIGINAL ALEXANDER BAY CAMPGROUND DRAWINGS DATED OCTOBER 1974 IN COMBINATION WITH INFRASTRUCTURE FOUND DURING CRANDALL SURVEY. ACTUAL LOCATIONS SHALL BE CONFIRMED IN THE FIELD BY THE CONTRACTOR.

2. DRAWINGS BASED ON COORDINATE SYSTEM UTM83-22 (UTM WITH NAD83 DATUM, ZONE 22, METER; CENTRAL MERIDIAN 51D W).

3. SAFETY SIGNS TO BE INSTALLED PRIOR TO START OF CONSTRUCTION AND IN ACCORDANCE WITH WORK AREA TRAFFIC CONTROL MANUAL.

4. THE CONTRACTOR MUST HAVE A COPY OF ALL APPROVED ENVIRONMENTAL PERMITS (IF REQUIRED) ON-SITE AT ALL TIMES AS WELL AS PARKS CANADA BASIC IMPACT ANALYSIS (B.I.A.).

5. CONTRACTOR SHALL CONFIRM EXACT LOCATION, MATERIAL AND SIZE OF EXISTING PIPING, UNDERGROUND UTILITIES AND ALL CONNECTION POINTS IN THE FIELD, PRIOR TO ANY WATER MAIN INSTALLATION.

6. CONTRACTOR SHALL LOCATE ALL EXISTING UTILITIES IN COORDINATION WITH PCA PRIOR TO BEGINNING WORK. LOCATES MUST BE PERFORMED BY CAREFUL EXCAVATION AND HAND DIGGING IN AREAS WHERE NEW INFRASTRUCTURE IS EXPECTED TO CROSS THE EXISTING UTILITIES. AS A MINIMUM, THE CONTRACTOR SHALL EXPOSE THE EXISTING UTILITIES BEFORE WORKING WITHIN 20m OF THEM.

7. THE CONTRACTOR IS RESPONSIBLE FOR THE TEMPORARY SUPPORT OF UTILITY POLES AND UNDERGROUND UTILITY DUCTS DURING THE INSTALLATION OF THE NEW WATER MAIN AS REQUIRED, INCIDENTAL TO THE WORK.

8. ANY UTILITIES THAT MAY BECOME DAMAGED DURING CONSTRUCTION MUST BE REPORTED TO THE DEPARTMENTAL REPRESENTATIVE IMMEDIATELY. COST RESULTING FROM SAID DAMAGE TO EXISTING POWER, COMMUNICATION OR UTILITY LINES SHOWN ON DRAWINGS OR FROM LOCATES DURING CONSTRUCTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

9. EROSION CONTROL STRUCTURES AND SILT FENCING TO BE INSTALLED PRIOR TO START OF THE WORK, INCIDENTAL TO THE WORK. CONTRACTOR TO PROVIDE EROSION CONTROL PLANS TO DEPARTMENTAL REPRESENTATIVE FOR APPROVAL PRIOR TO START OF WORK.

10. TREE CLEARING TO BE KEPT TO A MINIMUM AND TO BE APPROVED BY THE DEPARTMENTAL REPRESENTATIVE. ADJUSTMENTS TO THE PIPE ALIGNMENTS TO BE DONE IN THE FIELD TO MINIMIZE TREE CLEARING WITH THE DEPARTMENTAL REPRESENTATIVE'S APPROVAL.

11. USE OF HAY IS STRICTLY PROHIBITED.

12. AT NO POINT SHALL THE CONTRACTOR IMPORT ANY TOP SOIL UNLESS REQUESTED AND APPROVED BY THE DEPARTMENTAL REPRESENTATIVE.

13. HYDROSEED WILL BE PERMITTED ONLY IN EXISTING OPEN GRASS AREAS UNLESS REQUESTED AND APPROVED BY THE DEPARTMENTAL REPRESENTATIVE.

14. THE CONTRACTOR SHALL STOCKPILE TOP 150mm OF SOIL FROM GRUBBINGS AND RE-USE AS TOP DRESSING FOR RIGHT-OF-WAY, LAY DOWN AREAS AND ANY DISTURBED AREAS FOLLOWING THE INSTALLATION OF THE INFRASTRUCTURE.

15. EXISTING ASPHALT TO BE CUT SQUARE USING A SAW BEFORE THE START OF THE WORK, REFER TO SPECIFICATIONS.

16. ALL WATER MAINS, VALVE CHAMBERS, MANHOLES, SEWER MAINS, SEPTIC TANKS, AND SEPTIC FIELDS SHALL BE REMOVED WITHIN THE LIMITS OF THE WORK NEW WORK. ALL EXISTING INFRASTRUCTURE OUTSIDE OF THE WORK LIMITS SHALL BE ABANDONED IN PLACE, AS PER SPECIFICATIONS, INCIDENTAL TO THE WORK.

17. WATER MAIN SHALL BE INSULATED AT A DEPTH LESS THAN 1.8m RELATIVE TO THE GROUND. WHEN THE WATER MAIN IS PLACED AT A DEPTH LESS THAN 1.2m RELATIVE TO THE GROUND THE INSULATION IS TO BE 100mm THICK.

18. THE NEW WATER LINE SHALL BE INSTALLED IN A MANNER TO AVOID ANY HIGH POINTS. WHERE UNAVOIDABLE A 50mmØ COMBINATION AIR VALVE IN 1050mmØ AIR RELEASE AND VACUUM VALVE CHAMBER c/w VENT SHALL BE INSTALLED AS SHOWN ON THE DRAWINGS.

19. NEW FIRE HOSE BOXES SHALL BE A MINIMUM OF 2.0m AWAY FROM THE ROAD IN THE APPROXIMATE LOCATIONS SHOWN ON THE DRAWINGS. FIRE BOX/STAND PIPE ISOLATION VALVES SHALL BE INSTALLED UNDERGROUND 1.2m IN FRONT OF THE FIRE BOX'S CONCRETE SLAB.

20. NEW SERVICES (VALVES) TO BUILDINGS SHALL NOT BE OPENED OR MADE OPERATIONAL UNTIL AUTHORIZED BY PARKS CANADA REPRESENTATIVE.

21. MANHOLES, AND VALVE CHAMBERS, OR ANY OTHER CHAMBERS SHALL BE PRE-CAST CONCRETE STRUCTURES (SEE DETAILS), INCLUDING STANDARD FRAME AND COVERS CAPABLE OF WITHSTANDING TRAFFIC LOADING (H-20). ADJUSTABLE FRAME AND COVER SHALL BE USED WITHIN ASPHALT ROADWAY, OTHERWISE USE STANDARD COVERS.

22. CONTRACTOR SHALL ENSURE THAT THE WORK IS COMPLETE WITHOUT SURCHARGING OF RAW SEWAGE. PROVIDE TEMPORARY PUMPING OR VACUUM EQUIPMENT AS REQUIRED. THIS SHALL BE INCIDENTAL TO THE WORK.

23. 50mm THICK CLOSED CELL INSULATION SHALL BE PLACED ON SANITARY SEWERS AND SANITARY SERVICE PIPES WHERE COVER IS LESS THAN 1.5m. INSULATION TO BE MIN. 1.2m WIDE.

24. ALL SANITARY MANHOLES TO BE 1050mmØ UNLESS OTHERWISE NOTED.

25. SEPTIC SYSTEMS SHALL BE INSTALLED BY CERTIFIED AND LICENSED INSTALLERS WHO COMPLY WITH LOCAL AUTHORITY HAVING JURISDICTION.

26. EXISTING SEPTIC SYSTEMS BEING REPLACED SHALL BE DECOMMISSIONED AS PER SPECIFICATION.

27. CONTRACTOR SHALL CONNECT ALL NEW SERVICES TO EXISTING BUILDINGS C/W MANUFACTURER RECOMMENDED COUPLING/FITTING UNLESS OTHERWISE NOTED.

28. CONTRACTOR SHALL PERFORM PERCOLATION TESTS PRIOR TO CONSTRUCTION OF NEW SEPTIC SYSTEMS TO CONFIRM SOIL CONDITION.

29. RECONNECTION OF EXISTING SEWER MAIN AND SERVICE PIPE SHALL BE DONE AT END OF EACH DAY.

30. ALL DITCHES DISTURBED DURING THE COURSE OF THE WORK WILL BE CLEANED OUT AND RESHAPED BY THE CONTRACTOR AT HIS OWN EXPENSE AT THE END OF EACH WORK DAY, ALL TO THE SATISFACTION OF THE DEPARTMENTAL REPRESENTATIVE.

31. ALL DISTURBED AREAS SHALL BE REINSTATED TO PREVIOUS CONDITIONS OR BETTER; IN ACCORDANCE WITH THE SPECIFICATIONS.

32. ALL GRASSED AREAS DISTURBED DURING CONSTRUCTION SHALL BE RESTORED IN ACCORDANCE WITH THE SPECIFICATIONS.

33. EXISTING ASPHALT AND CRUSHED ROCK DRIVEWAYS AFFECTED BY THE WORK SHALL BE RESTORED IN ACCORDANCE WITH THE SPECIFICATIONS.

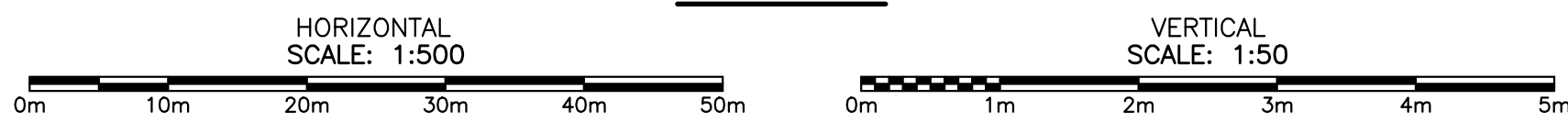
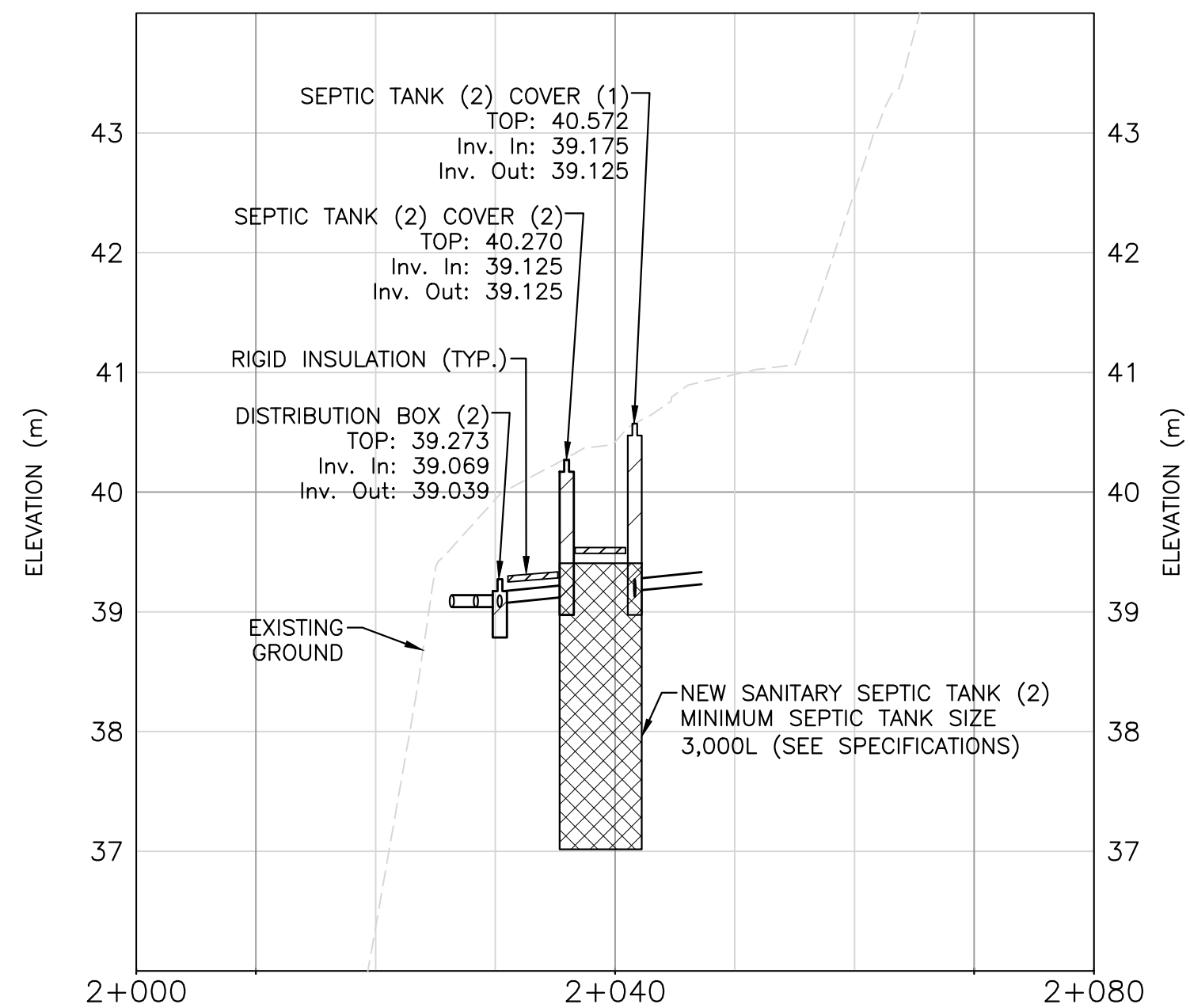
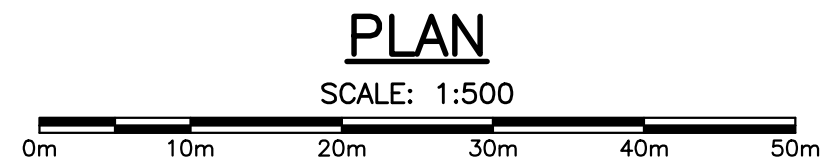
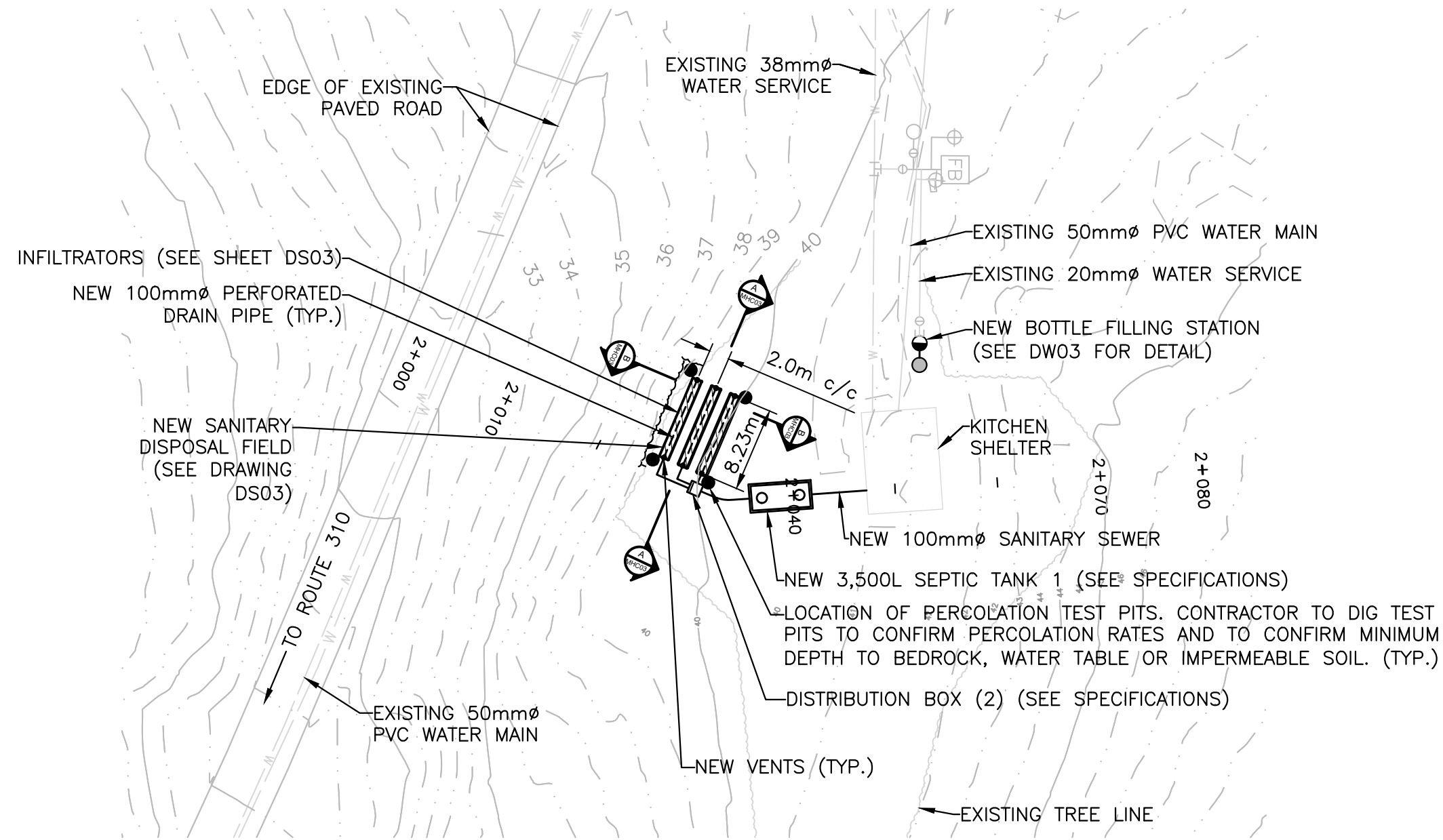
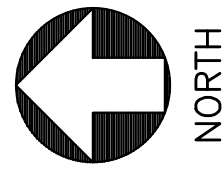
34. TACK COAT SHALL BE PLACED ON ALL EXISTING ASPHALT SURFACES PRIOR TO ASPHALT PLACEMENT.

35. REFER TO SPECIFICATIONS FOR GEOTECHNICAL REPORT.









Structure Table			
MANHOLE ID	EASTING	NORTHING	ELEVATION
DISTRIBUTION BOX (2)	285145.255	5392532.236	39.273
SEPTIC TANK (2) COVER (1)	285144.710	5392521.093	40.572
SEPTIC TANK (2) COVER (2)	285144.313	5392526.764	40.270

DESIGN CRITERIA	VALUE APPLIED	UNITS/COMMENTS
TYPE OF EFFLUENT	DOMESTIC	FROM WASHROOMS AND COOK SHELTERS
WATER WELL	N/A	
AVERAGE EFFLUENT FLOW	1.5	m <sup>3</sup> /d
PEAK DAILY EFFLUENT FLOW	4.53	m <sup>3</sup> /d
TANKAGE	3.5	m <sup>3</sup>
EFFLUENT FILTER	YES	
HYDRAULIC RETENTION TIME	1.5	DAYS
EXISTING SOIL INFILTRATION RATE	0.0083	cm/sec.
	7,200	mm/d
TREATMENT CELLS	1	CONCRETE SEPTIC TANK
TREATMENT LEVEL	B I	AS PER CSA STANDARDS
LENGTH OF LINEAR PIPE	24.7	m
LINEAR HYDRAULIC LOADING	60.8	L/(m d);
SEPTIC FIELD AREA	21.3	m <sup>2</sup>
HYDRAULIC FIELD LOADING	70.3	L/(m <sup>2</sup> d);
EFFLUENT BOD <sub>5</sub>	150	mg/L
BOD <sub>5</sub> FIELD LOADING	10552	mg/(m <sup>2</sup> d)

#### NOTES:

1. SEE MHC01 FOR GENERAL NOTES AND LEGEND.

2. ALL MANHOLES, VALVE CHAMBERS, PIPING AND OTHER INFRASTRUCTURE THAT ARE PART OF THE EXISTING WATER AND SEWER SYSTEM IS TO BE REMOVED/ABANDONED AS NECESSARY TO ALLOW FOR THE INSTALLATION OF NEW INFRASTRUCTURE.

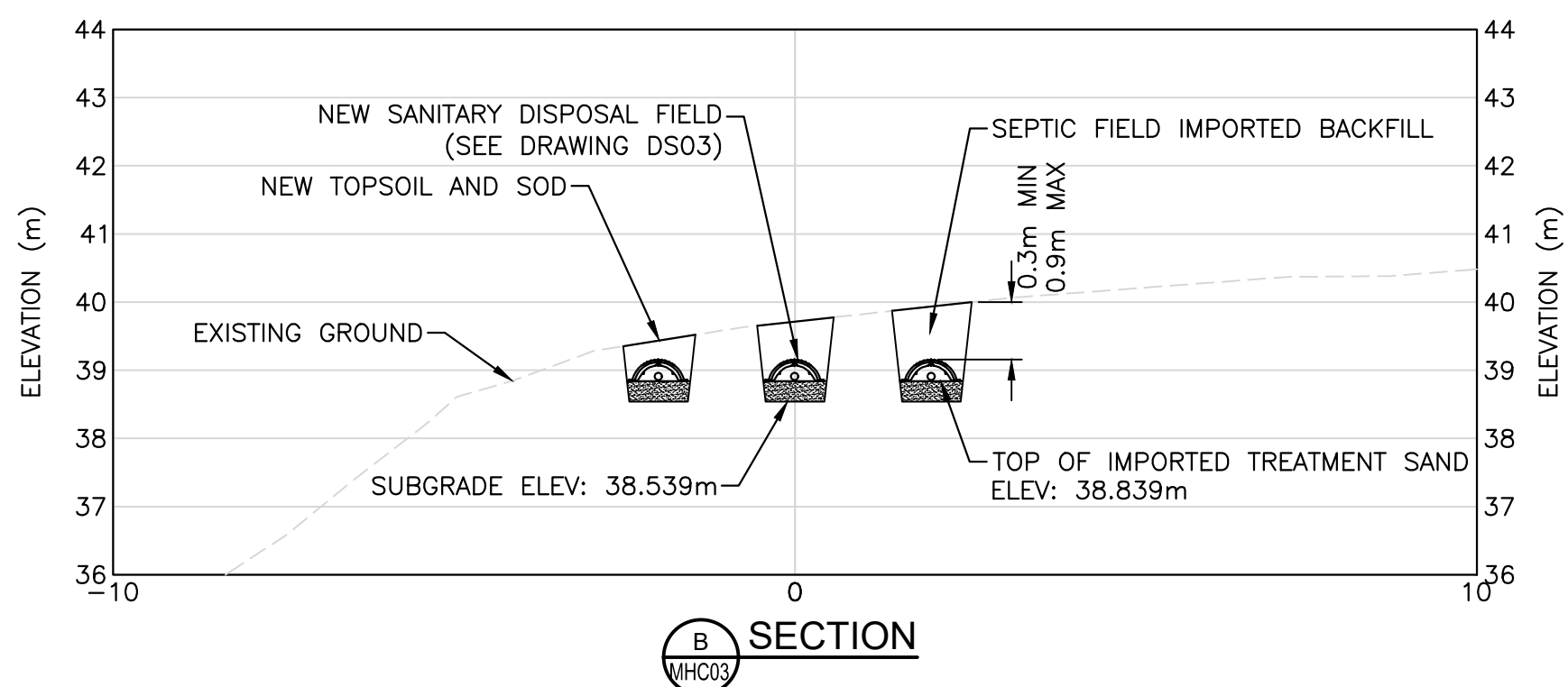
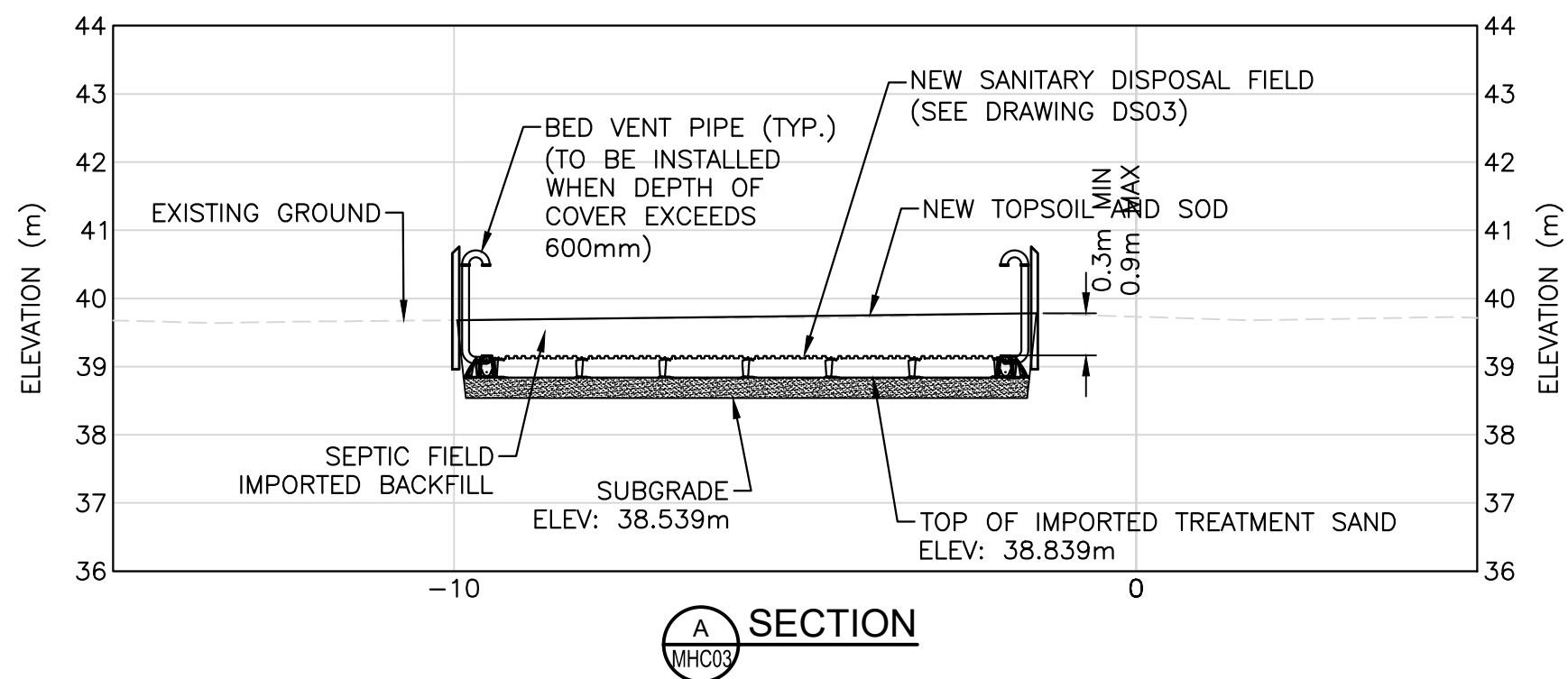
3. LOCATION OF WATER SERVICE LINES TO FIRE BOXES, STANDPIPES, WASHROOMS, COOK SHELTERS ETC. ARE APPROXIMATE. EXACT PATH OF WATER SERVICE LINE SHALL BE DETERMINED IN THE FIELD BY THE DEPARTMENTAL REPRESENTATIVE SUCH THAT IMPACT TO TREES ARE LIMITED.

4. CONTRACTOR TO DETERMINE LOCATION OF EXISTING DRAIN AND EXPOSE IF END IS BURIED.

5. NEW 38mm VALVE IN NEW 600mm HDPE CHAMBER. REPLACE EXISTING GATE VALVE WITH NEW VALVE OF EQUAL SIZE AND APPROPRIATE FITTINGS INSIDE NEW VALVE CHAMBER.

6. BENDS MAY BE REQUIRED ON WATER MAIN, DEPENDING ON THE TYPE OF PIPE USED.

7. SEPTIC SYSTEM SHALL BE INSTALLED BY CERTIFIED AND LICENSED INSTALLERS WHO COMPLY WITH LOCAL AUTHORITY HAVING JURISDICTION.

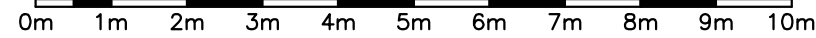


#### SECTIONS

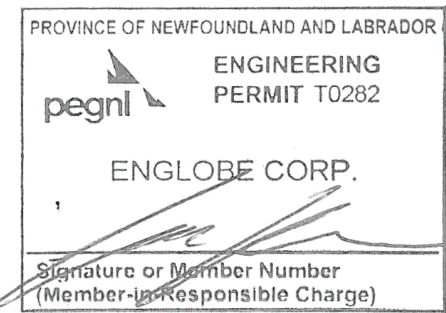
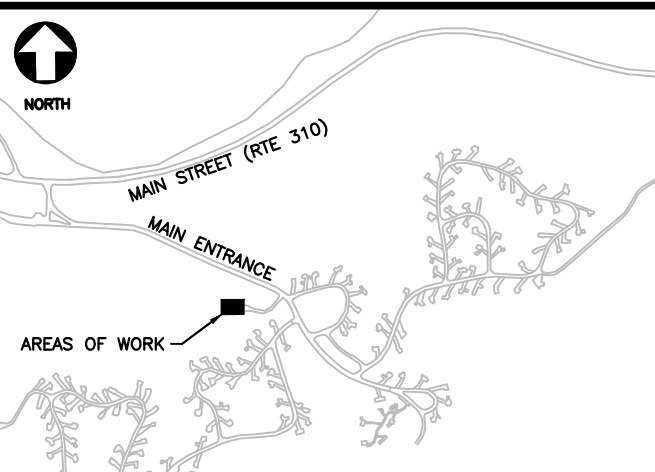
HORIZONTAL

VERTICAL

SCALE : 1:100



#### KEY PLAN



0.0	ISSUED FOR TENDER	05/31 2021
revisions		date

project TERRA NOVA NATIONAL PARK UTILITY SYSTEMS RECAPITALIZATION PHASE 3

TERRA NOVA NATIONAL PARK

drawing SANITARY DISPOSAL FIELD PLAN, PROFILE & SECTIONS STA. 2+000 TO 2+080

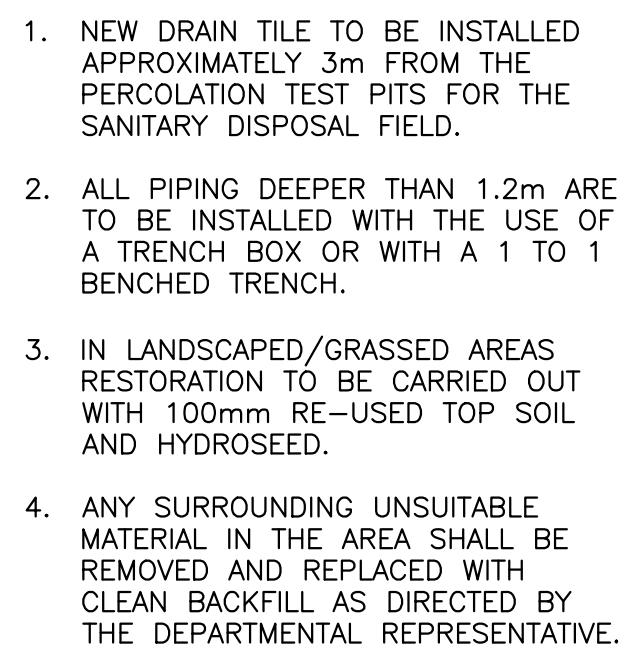
designed	A. MELANSON	conçu
date	2021-02-26	
drawn	C. CAISSIE/S. ALLAIN	dessiné
date	2021-02-26	
approved	A. MELANSON	approuvé
date	2021-02-26	
Tender		Soumission

PCA Project Manager Administrateur de projets APC

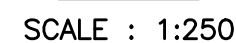

project number 1716

drawing no. MHC03





SCALE : 1:20



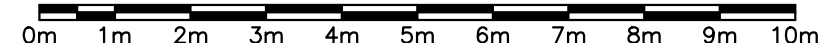
7. SEPTIC SYSTEM SHALL BE INSTALLED BY CERTIFIED AND LICENSED INSTALLERS WHO COMPLY WITH LOCAL AUTHORITY HAVING JURISDICTION.



## A SECTION

SECTION

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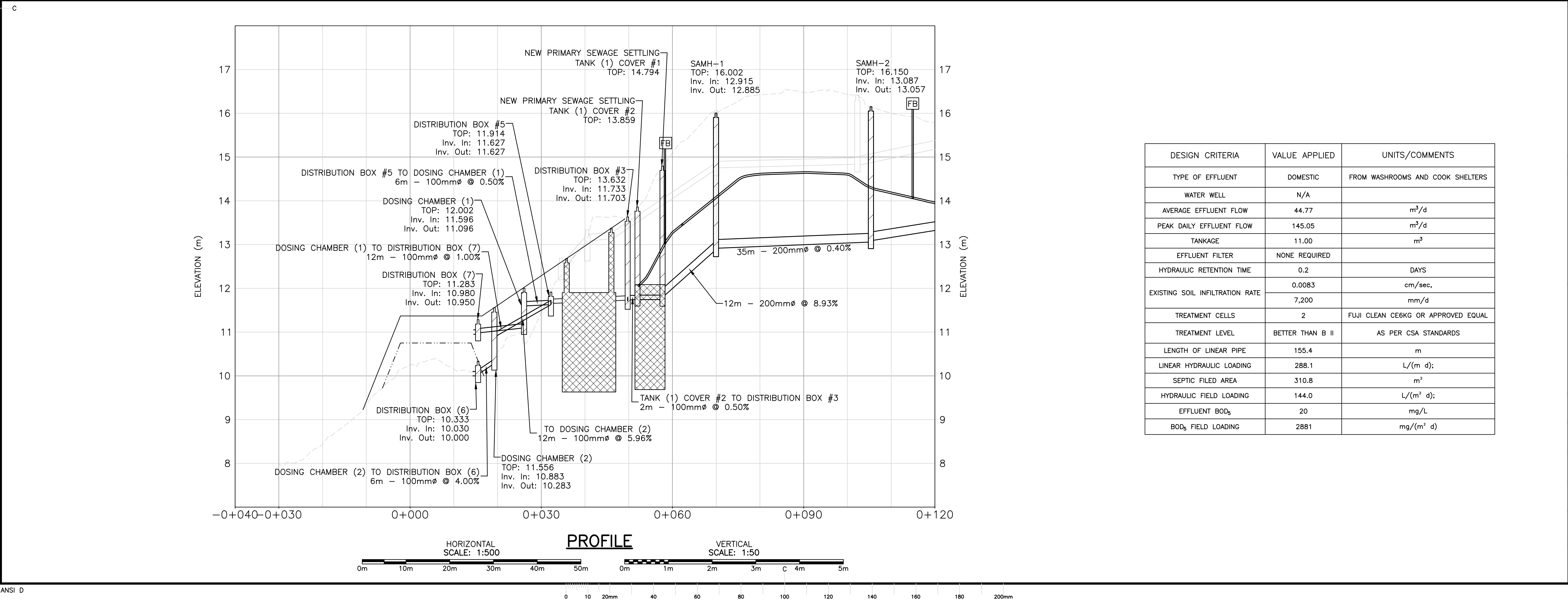
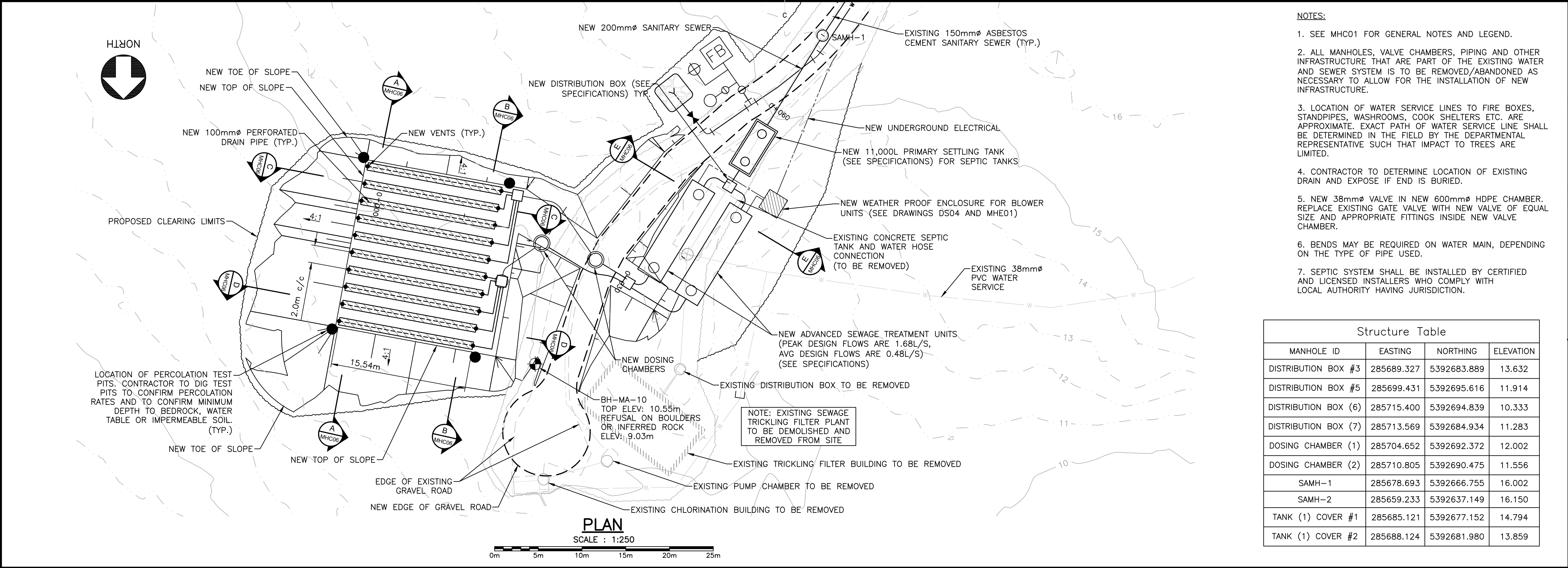


## PROFILE



DESIGN CRITERIA	VALUE APPLIED	UNITS/COMMENTS
TYPE OF EFFLUENT	DOMESTIC	FROM WASHROOMS AND COOK SHELTERS
WATER WELL	N/A	
AVERAGE EFFLUENT FLOW	1.5	m <sup>3</sup> /d
PEAK DAILY EFFLUENT FLOW	4.53	m <sup>3</sup> /d
TANKAGE	3.0	m <sup>3</sup>
EFFLUENT FILTER	YES	
HYDRAULIC RETENTION TIME	1.5	DAYS
EXISTING SOIL INFILTRATION RATE	0.0083	cm/sec,
	7,200	mm/d
TREATMENT CELLS	1	CONCRETE SEPTIC TANK
TREATMENT LEVEL	B I	AS PER CSA STANDARDS
LENGTH OF LINEAR PIPE	24.7	m
LINEAR HYDRAULIC LOADING	60.8	L/(m d);
SEPTIC FIELD AREA	21.3	m <sup>2</sup>
HYDRAULIC FIELD LOADING	70.3	L/(m <sup>2</sup> d);
EFFLUENT BOD <sub>5</sub>	150	mg/L
BOD <sub>5</sub> FIELD LOADING	10552	mg/(m <sup>2</sup> d)





Parks Canada

Englobe

KEY PLAN

PROVINCE OF NEWFOUNDLAND AND LABRADOR  
ENGINEERING PERMIT T0282  
ENGLOBE CORP.  
Signature or Member Number (Member-Responsible Charge)

05/31/2021

ISSUED FOR TENDER

05/31/2021

revisions

project

TERRA NOVA NATIONAL PARK  
UTILITY SYSTEMS  
RECAPITALIZATION  
PHASE 3

TERRA NOVA NATIONAL PARK

drawing

dessin

SANITARY DISPOSAL FIELD  
PLAN & PROFILE  
STA. -0+040 TO 0+120

designed A. MELANSON

conçu

date 2021-02-26

drawn C. CAISSIE/S. ALLAIN

dessiné

date 2021-02-26

approved A. MELANSON

approuvé

date 2021-02-26

Tender

Soumission

PCA Project Manager

Administrateur de projets APC

project number

no. du projet

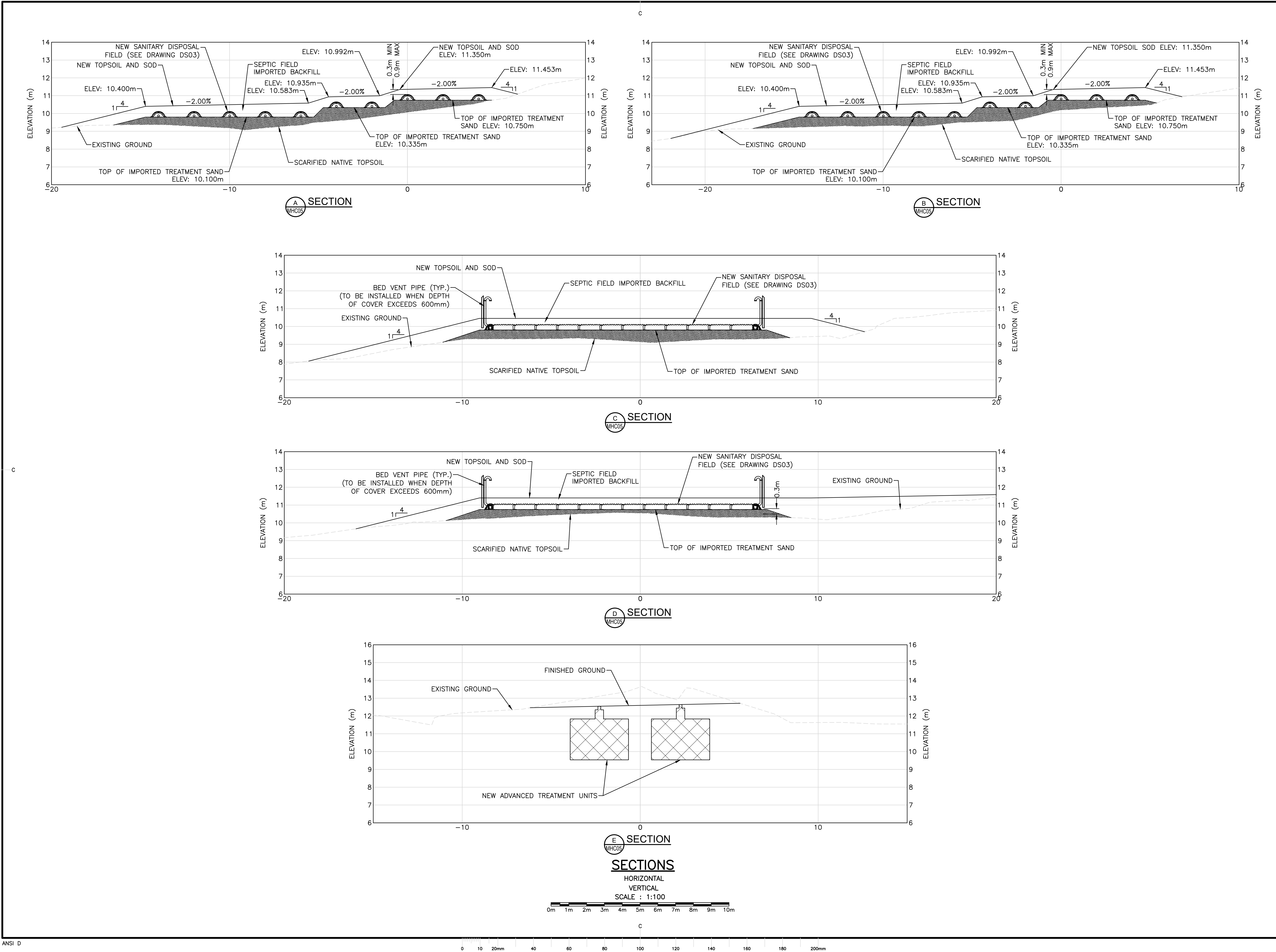
1716


drawing no.

no. du dessin


MHC05



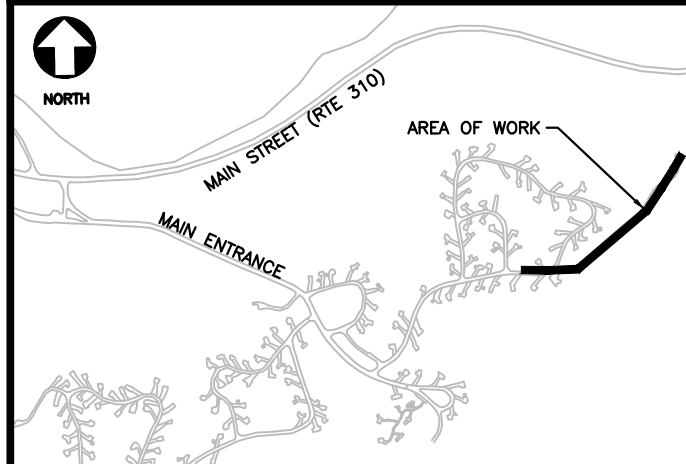





Parks Canada



KEY PLAN

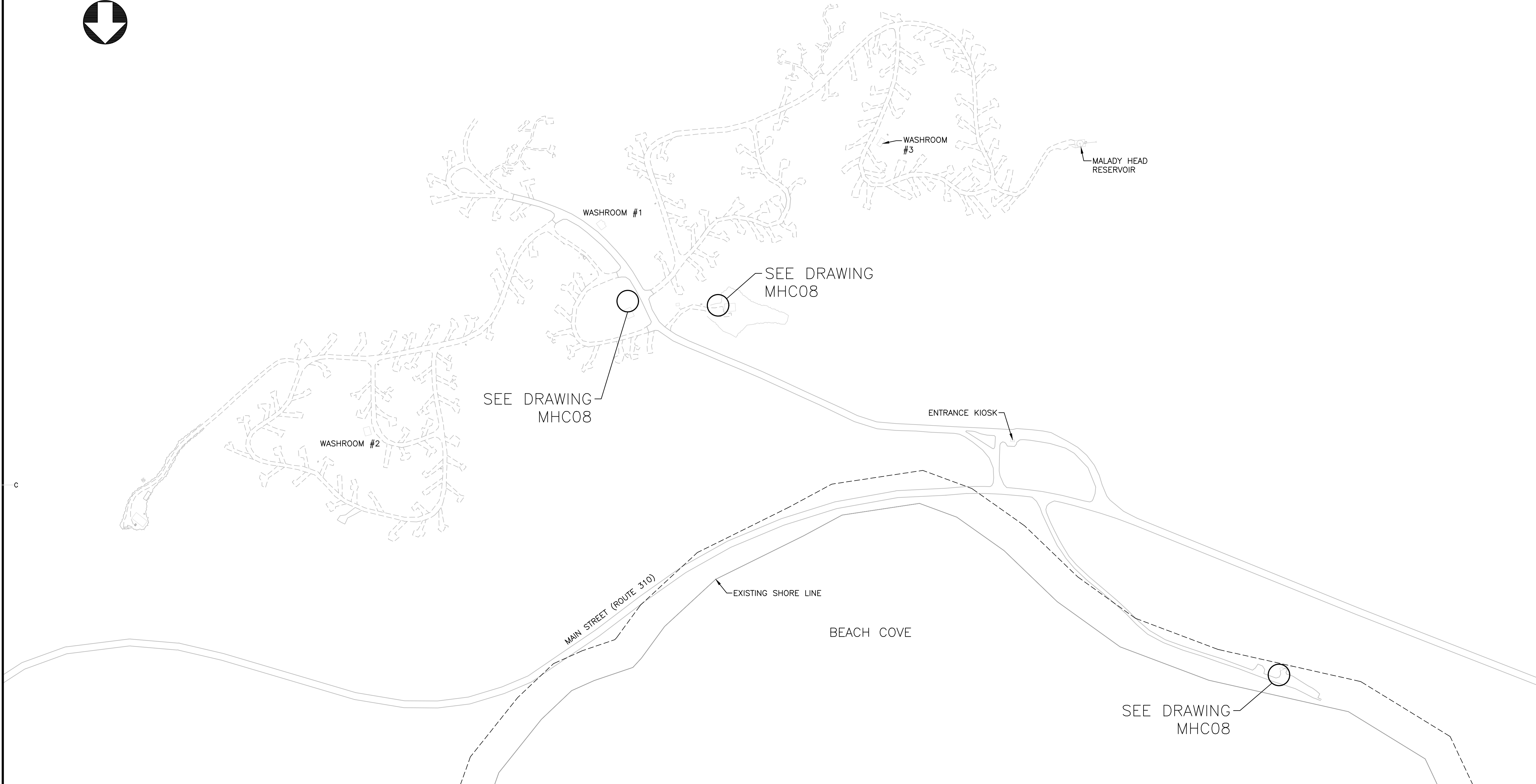


PROVINCE OF NEWFOUNDLAND AND LABRADOR  
ENGINEERING PERMIT T0282  
ENGLOBE CORP.  
Signature or Member Number (Member in Responsible Charge)

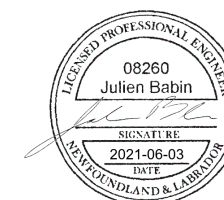
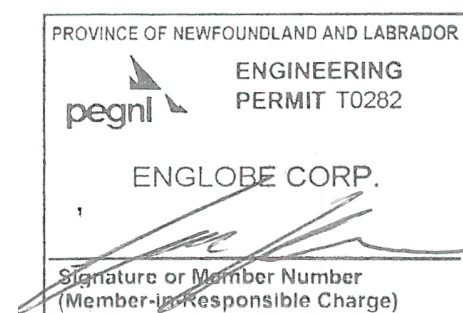
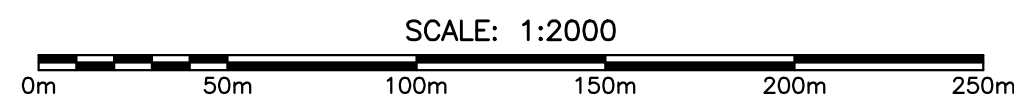


0.0	ISSUED FOR TENDER	05/31 2021
revisions		date
project	TERRA NOVA NATIONAL PARK UTILITY SYSTEMS RECAPITALIZATION PHASE 3	
drawing	SANITARY DISPOSAL FIELD CROSS SECTIONS	
designed	A. MELANSON	conçu
date	2021-02-26	
drawn	C. CAISSIE/S. ALLAIN	dessiné
date	2021-02-26	
approved	A. MELANSON	approuvé
date	2021-02-26	
Tender	Soumission	
PCA Project Manager	Administrateur de projets APC	
project number	1716	
drawing no.	MHC06	





**MALADY HEAD BOTTLE FILLING STATIONS LOCATION PLAN**



0.0	ISSUED FOR TENDER	05/31/2021
revisions		date

project	<b>TERRA NOVA NATIONAL PARK UTILITY SYSTEMS RECAPITALIZATION PHASE 3</b>	projet
---------	--	--------

TERRA NOVA NATIONAL PARK

drawing	dessin
---------	--------

**MALADY HEAD BOTTLE FILLING STATIONS LOCATION PLAN**

designed A. MELANSON conçu

date 2021-02-26

drawn S. ALLAIN dessiné

date 2021-02-26

approved A. MELANSON approuvé

date 2021-02-26

Tender Soumission

PCA Project Manager Administrateur de projets APC

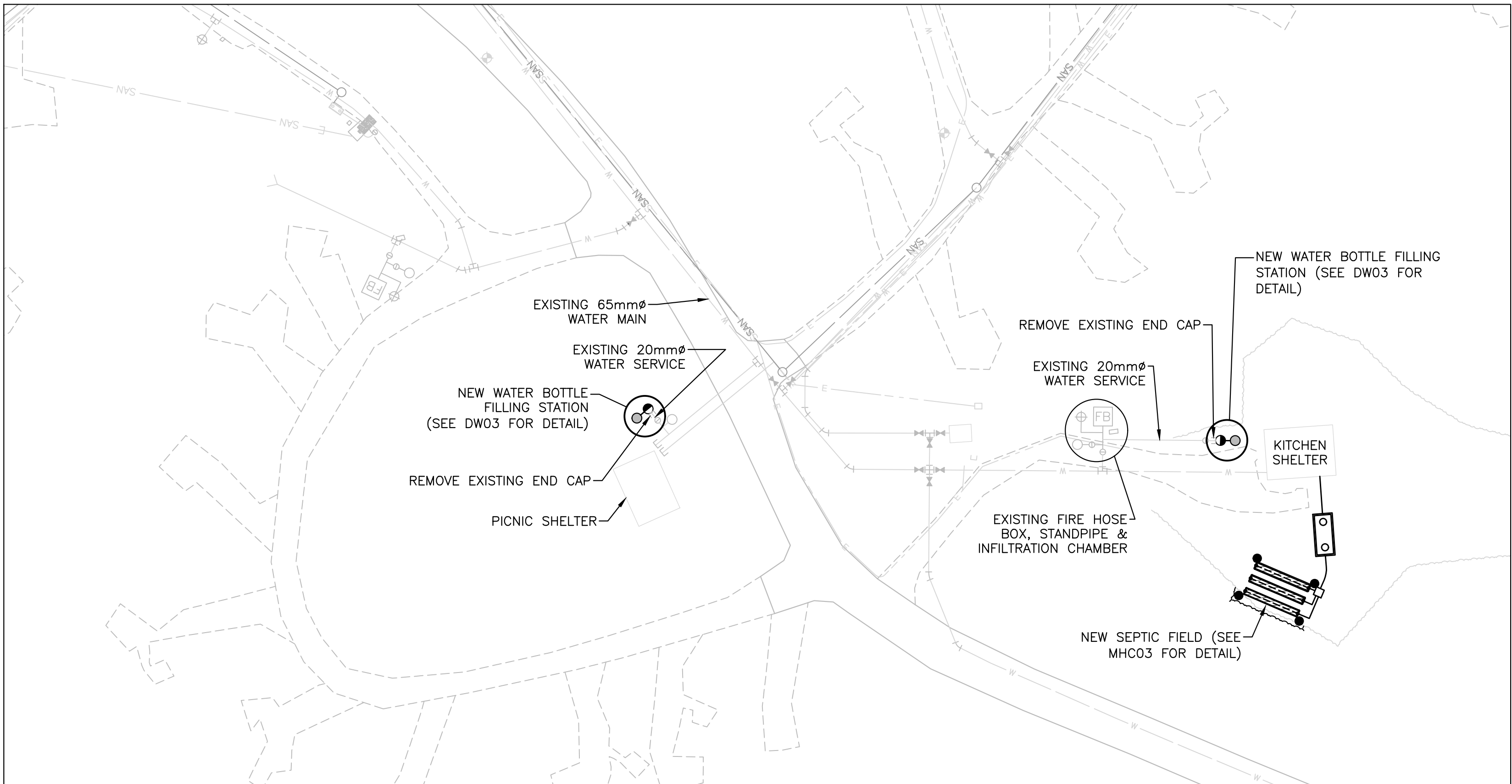
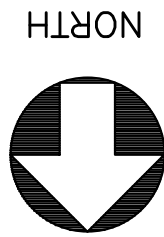
project number no. du projet

1716

drawing no. no. du dessin

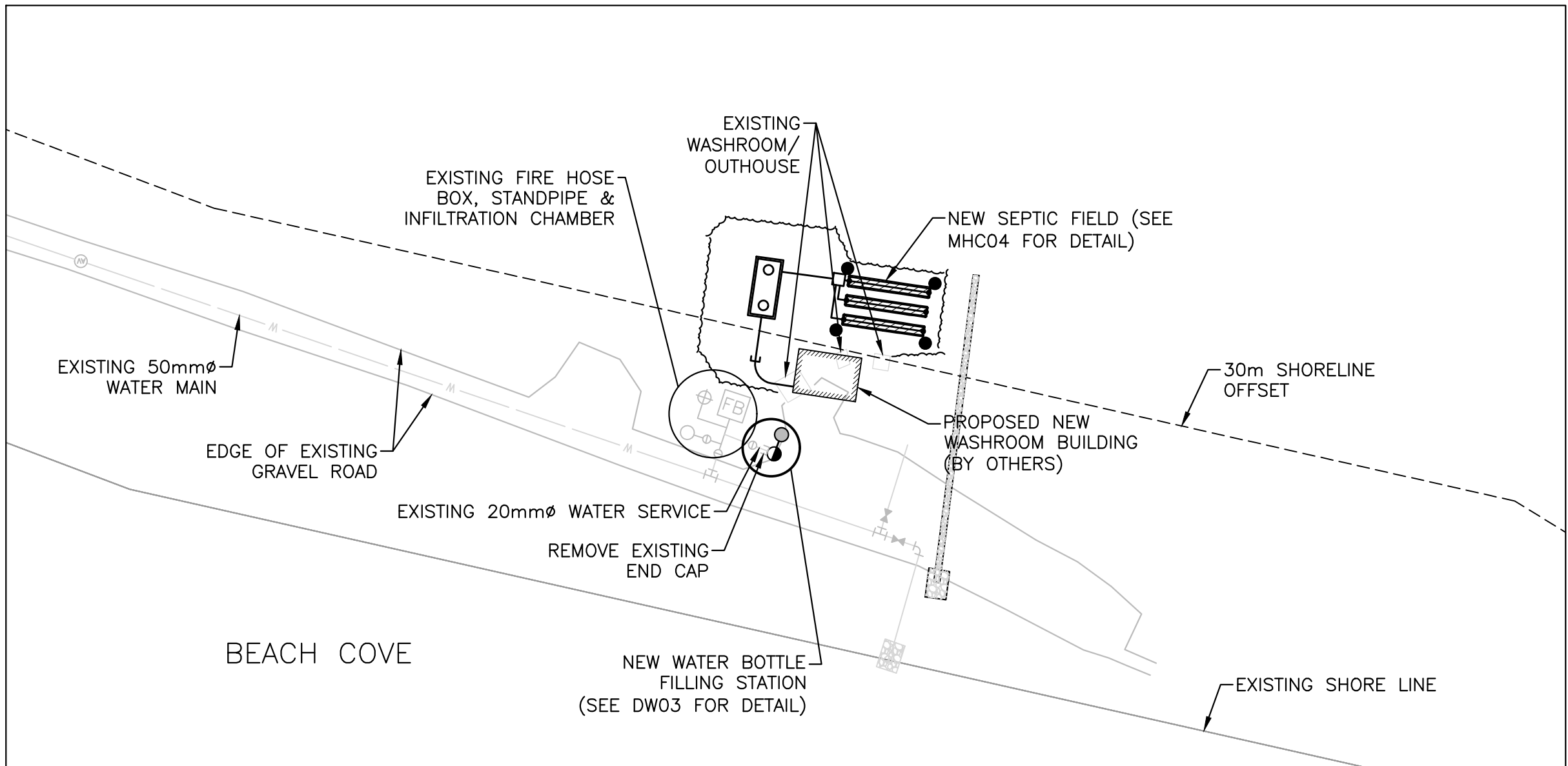
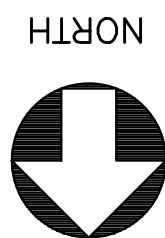
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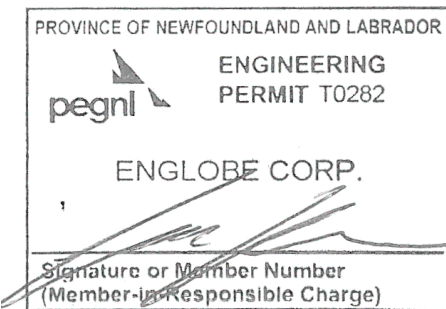
PLAN

SCALE: 1:500



PLAN

SCALE: 1:500



0.0	ISSUED FOR TENDER	05/31 2021
revisions		date

project TERRA NOVA NATIONAL PARK UTILITY SYSTEMS RECAPITALIZATION PHASE 3

drawing TERRA NOVA NATIONAL PARK

MALADY HEAD BOTTLE FILLING STATIONS SITE PLANS

designed	A. MELANSON	conçu
date	2021-02-26	
drawn	S. ALLAIN	dessiné
date	2021-02-26	
approved	A. MELANSON	approuvé
date	2021-02-26	
Tender		Soumission

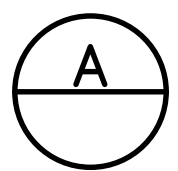
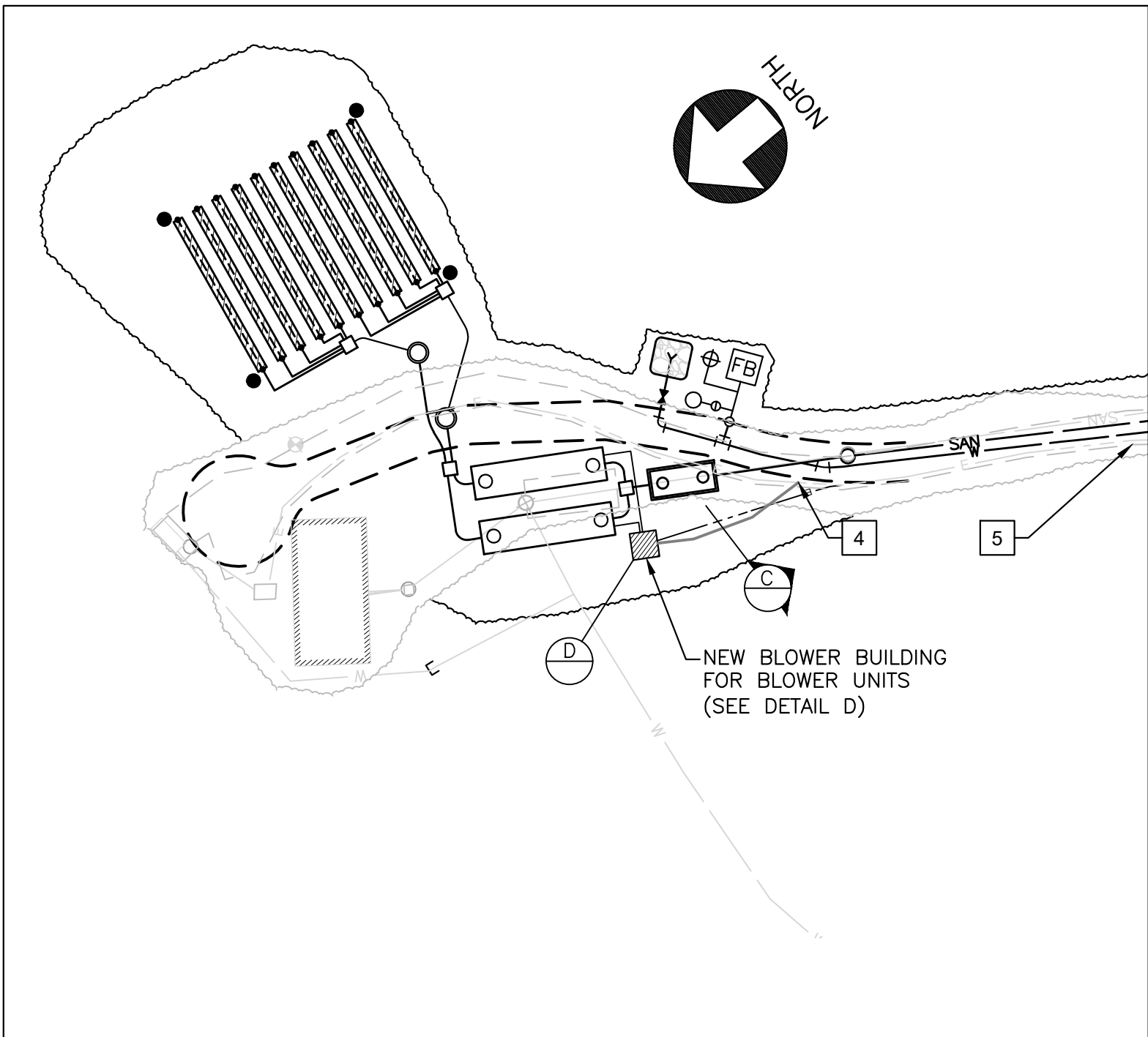
PCA Project Manager	Administrateur de projets APC
project number	no. du projet

1716

drawing no.	no. du dessin
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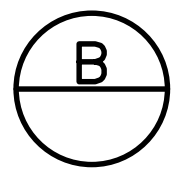
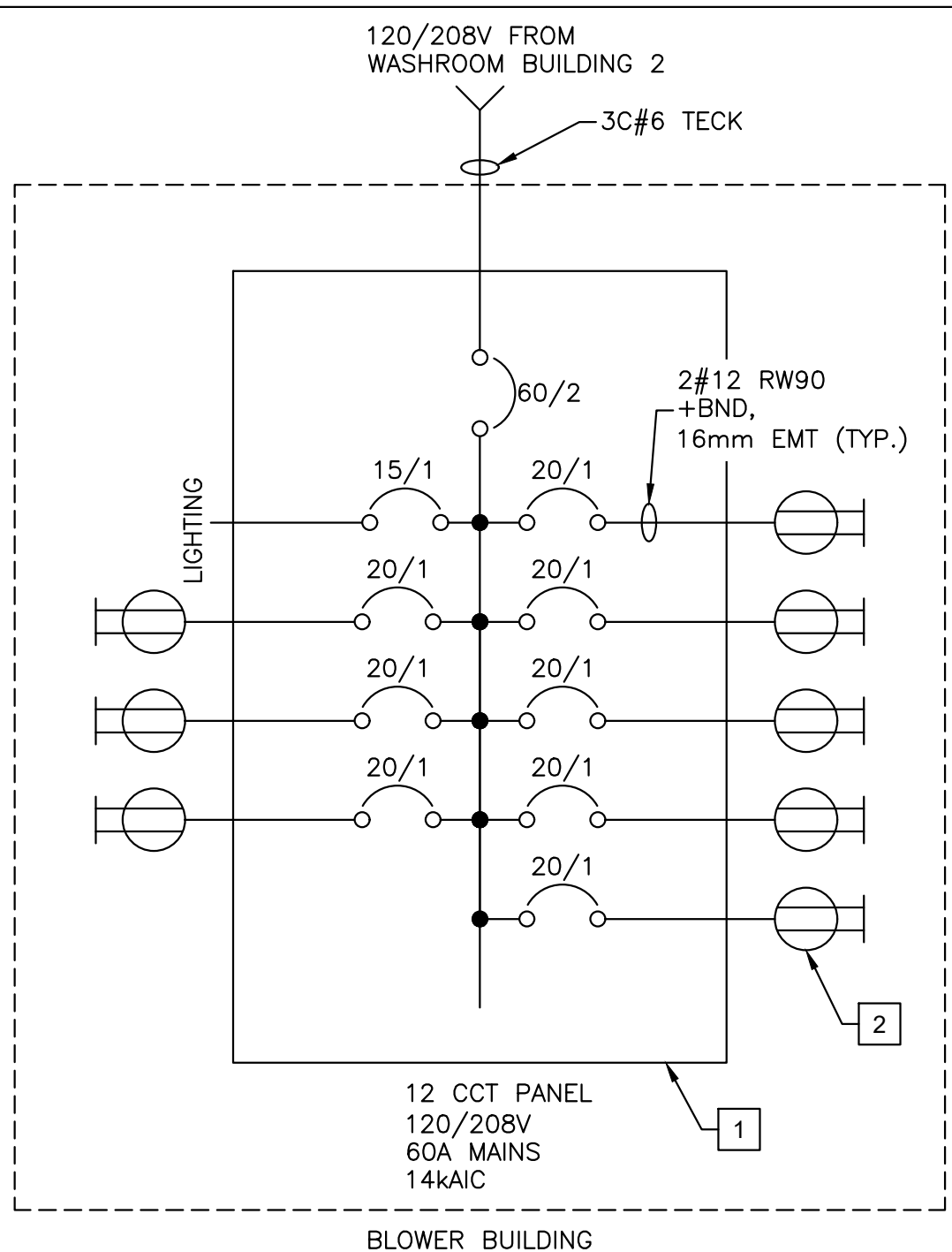
MHC08





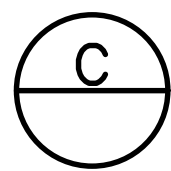
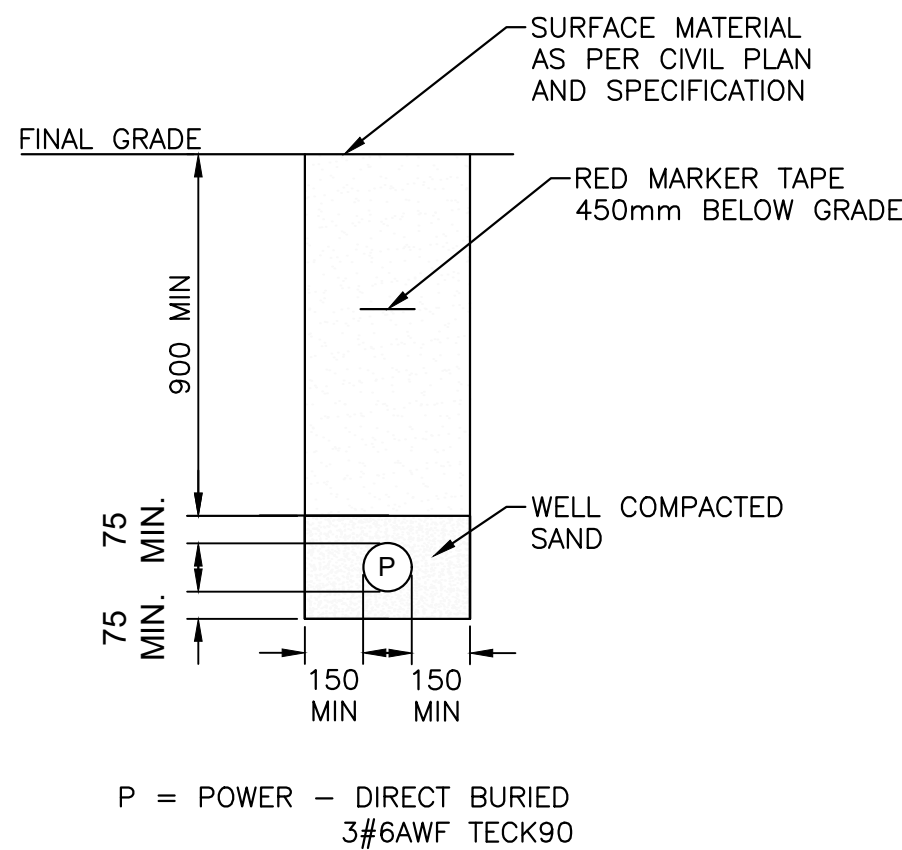
**ELECTRICAL FOR BLOWER BUILDING (TYP.)**

SCALE: 1:500



**PANEL DETAIL FOR BLOWER BUILDING**

SCALE : N.T.S.



**ELECTRICAL CONDUIT INSTALLATION DETAIL**

SCALE : N.T.S.

**GENERAL NOTES:**

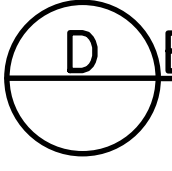
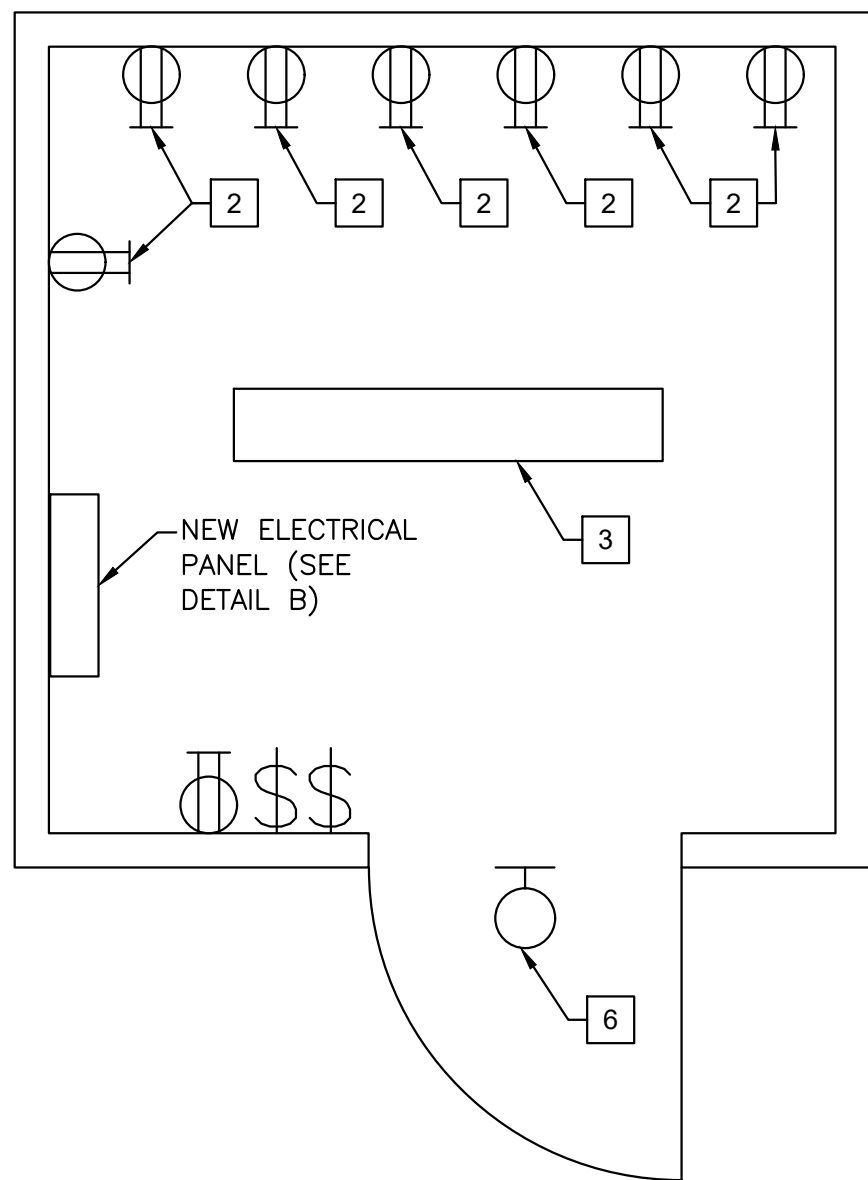
- COORDINATE EXACT ROUTING OF ALL UNDERGROUND SERVICES AND EQUIPMENT LOCATIONS WITH DEPARTMENTAL REPRESENTATIVE PRIOR TO INSTALLATION.
- MINIMIZE WIDTH OF CLEARING WHEN PROVIDING CORRIDOR FOR TRENCHING. MAXIMUM CORRIDOR WIDTH SHALL BE 3m.
- ADJUST PATH OR LOCATION OF NEW INFRASTRUCTURE IN THE FIELD TO AVOID IMPACT TO TREES. ANY TREE CLEARING SHALL BE REVIEWED AND APPROVED BY DEPARTMENTAL REPRESENTATIVE.

**KEYNOTES:**

- PROVIDE 12-CIRCUIT 60A, 120/240V PANEL c/w MAIN BREAKER IN NEW BLOWER BUILDING. PROVIDE TWO (2) 20A/1P SPARE BREAKERS IN ADDITION TO ONES SHOWN.
- COORDINATE RECEPTACLE LOCATIONS WITH MECHANICAL.
- PROVIDE AND INSTALL ONE (1) VAPOUR-TIGHT LOW PROFILE LED LUMINAIRE LITHONIA No.FEM L48 4000LM LPPFL WD MVOLT GZ10 35K 90CRI.
- DIVERT EXISTING UNDERGROUND 3C#6 TREATMENT PLANT ELECTRICAL FEED TO NEW BLOWER BUILDING. THIS EXISTING CABLE CONNECTS TO WASHROOM BUILDING 2.
- DISCONNECT EXISTING 3C#6 TECK CABLE FROM 600V SUPPLY TO TREATMENT PLANT IN WASHROOM BUILDING 2. REMOVE EXISTING SAFETY DISCONNECT SWITCH. RECONNECT CABLE TO 120/208V SUPPLY IN EXISTING PANEL, USING NEW 60/2 BREAKER TO FEED NEW BLOWER BUILDING. EXTEND CABLE AS REQUIRED. PROVIDE NEW JUNCTION BOX AND EXTEND CIRCUIT AS REQUIRED.
- PROVIDE AND INSTALL ONE (1) EXTERIOR WALL PACK LED LUMINAIRE ABOVE THE DOOR LITHONIA #WST-LED-P2-27K-VW-120-PE-DBLXD WITH INTEGRAL PHOTO SENSOR.

**LEGEND:**

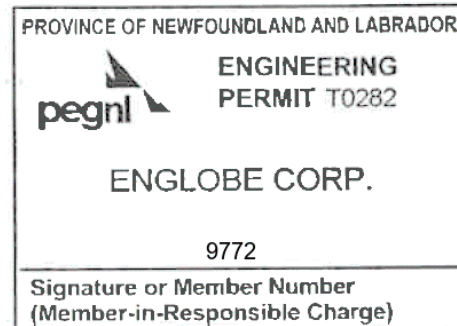
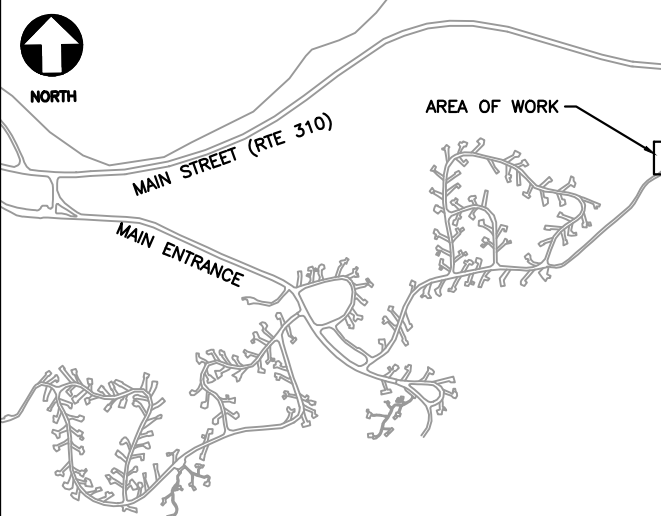
- |  |                    |
|--|--------------------|
|  | 2x4 LUMINAIRE      |
|  | EXTERIOR LUMINAIRE |
|  | RECEPTACLE         |
|  | SWITCH             |



**BLOWER BUILDING FLOOR PLAN**

SCALE : N.T.S.

**KEY PLAN**



0.0	ISSUED FOR TENDER	05/31/2021
revisions		date

project	TERRA NOVA NATIONAL PARK UTILITY SYSTEMS RECAPITALIZATION PHASE 3	proj
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drawing	TERRA NOVA NATIONAL PARK	dessin
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**ELECTRICAL FOR MALADY HEAD BLOWER BUILDING**

designed	F. ST-ONGE	conçu
date	2019-05-28	
drawn	F. ST-ONGE	dessiné
date	2019-05-29	
approved	D. DOW	approuvé
date	2021-02-26	
Tender		Soumission

PCA Project Manager	Administrateur de projets APC
project number	no. du projet

1716

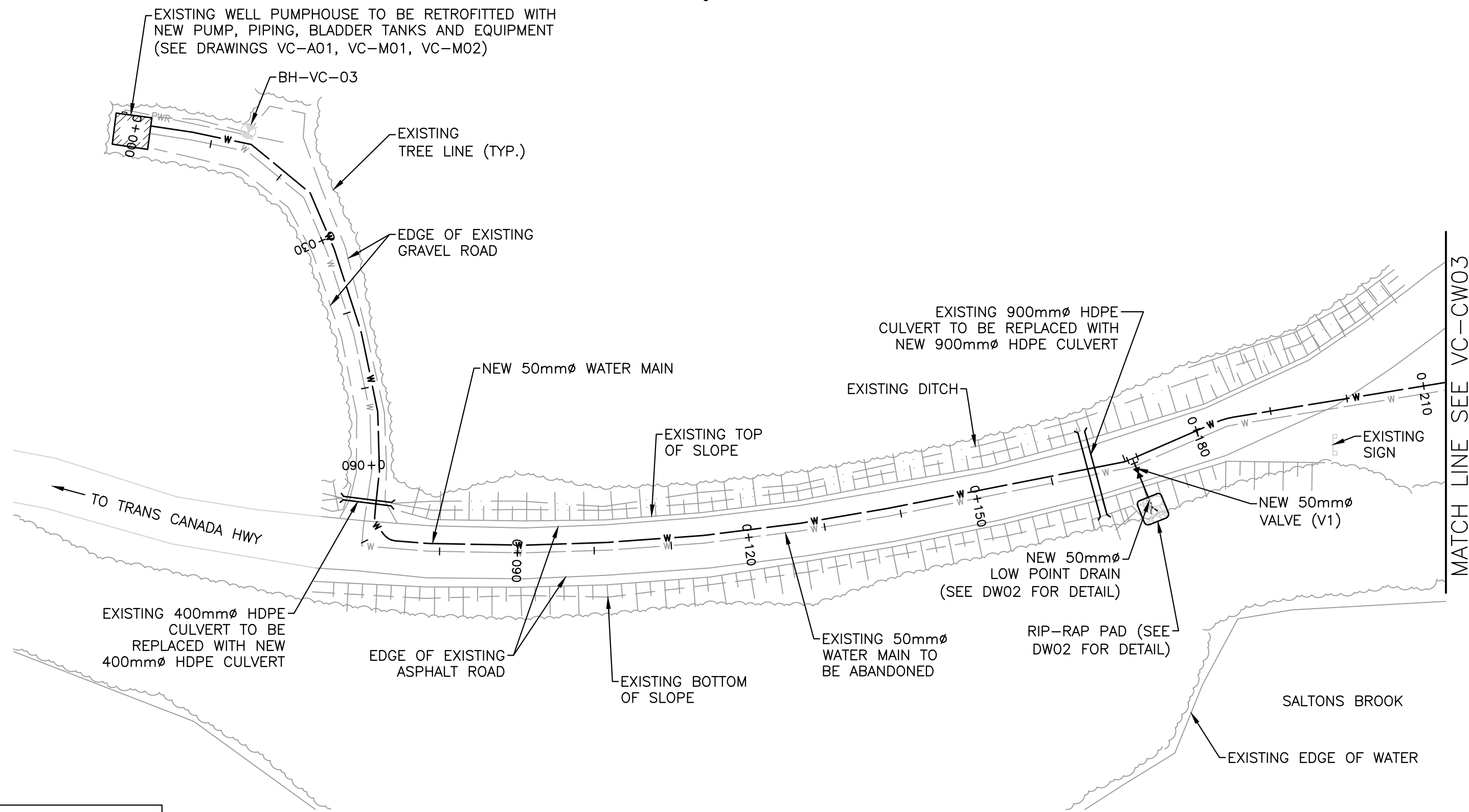
drawing no.	no. du dessin
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MHE01





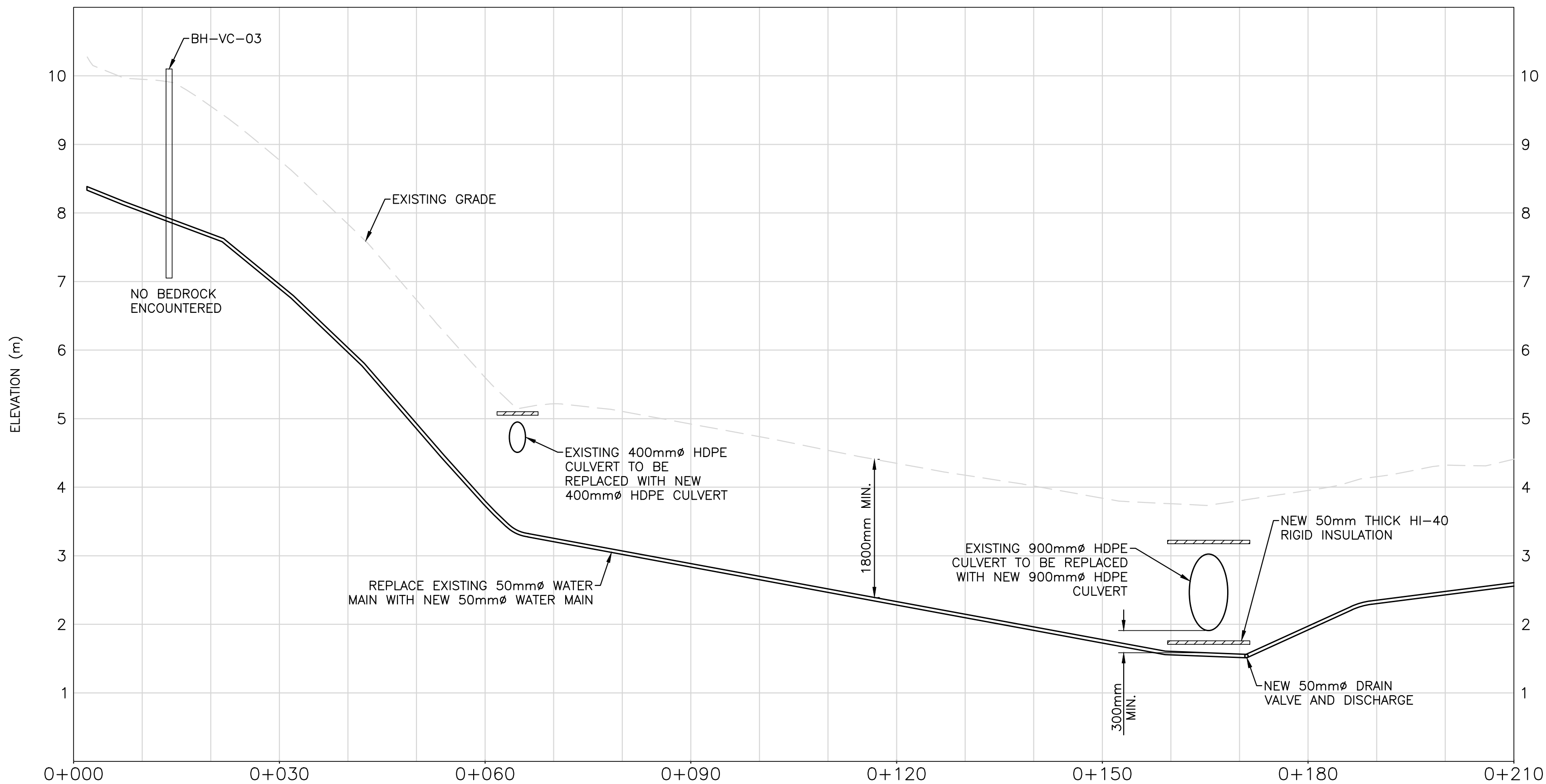




NEWMAN SOUND VALVE TABLE				
POINT No.	VALVE	DESCRIPTION	EASTING	NORTHING
1	V1	50mm Ø VALVE	282338.8775	5384948.1887

PLAN

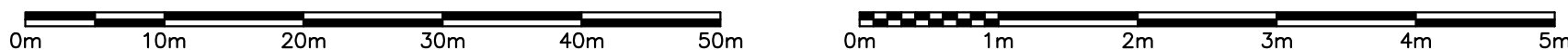
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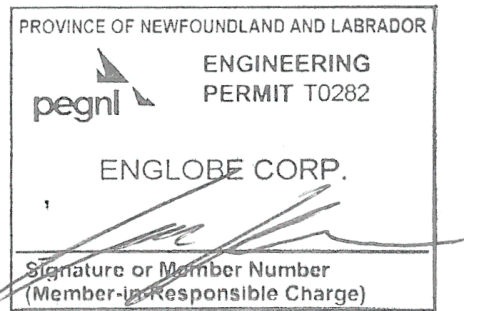
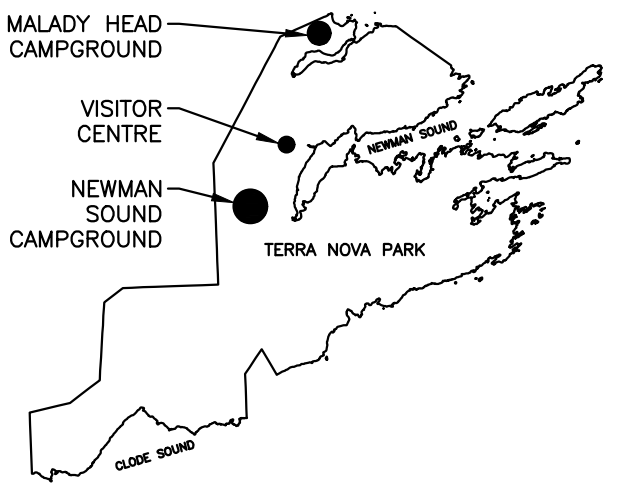
PROFILE

HORIZONTAL  
SCALE: 1:500

VERTICAL  
SCALE: 1:50



KEY PLAN



0.0	ISSUED FOR TENDER	05/31 2021
revisions		date

project  
**TERRA NOVA  
NATIONAL PARK  
UTILITY SYSTEMS  
RECAPITALIZATION  
PHASE 3**  
dessin

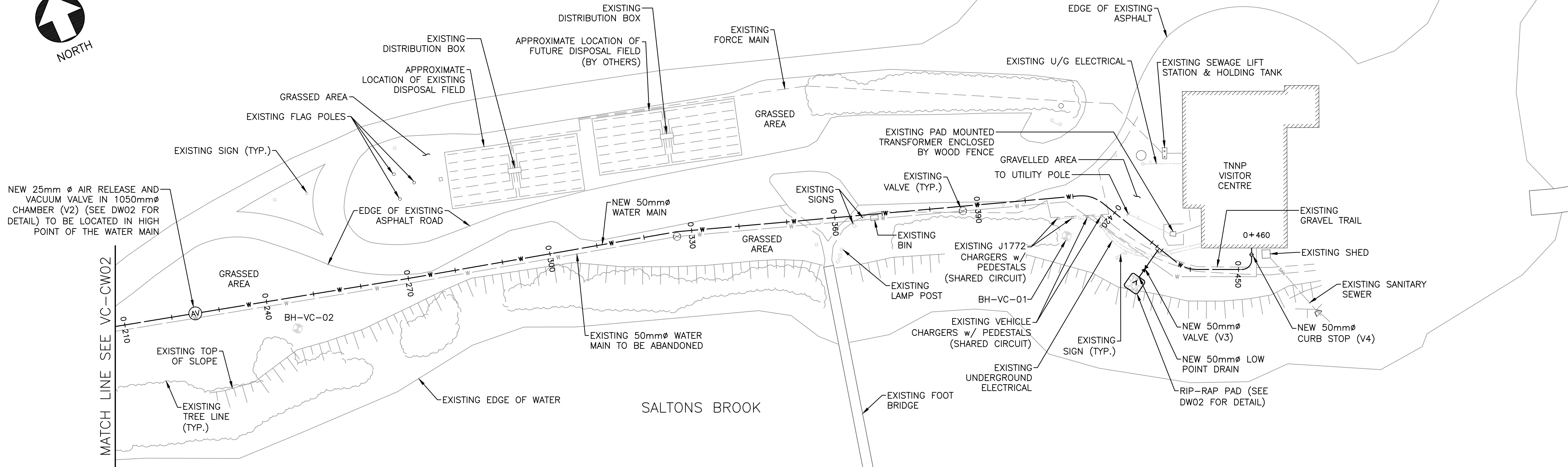
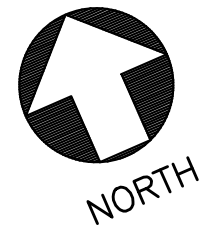
TERRA NOVA NATIONAL PARK  
drawing  
**WELL PUMPHOUSE TO  
TNNP VISITOR CENTRE  
WATER MAIN  
PLAN & PROFILE  
STA. 0+000 TO 0+210**

designed A. MELANSON  
date 2021-02-26  
drawn S. ALLAIN  
date 2021-02-26  
approved A. MELANSON  
date 2021-02-26  
Tender  
Soumission

PCA Project Manager  
Administrateur de projets APC  
project number  
**1716**  
no. du projet

drawing no.  
**VC-CW02**  
no. du dessin



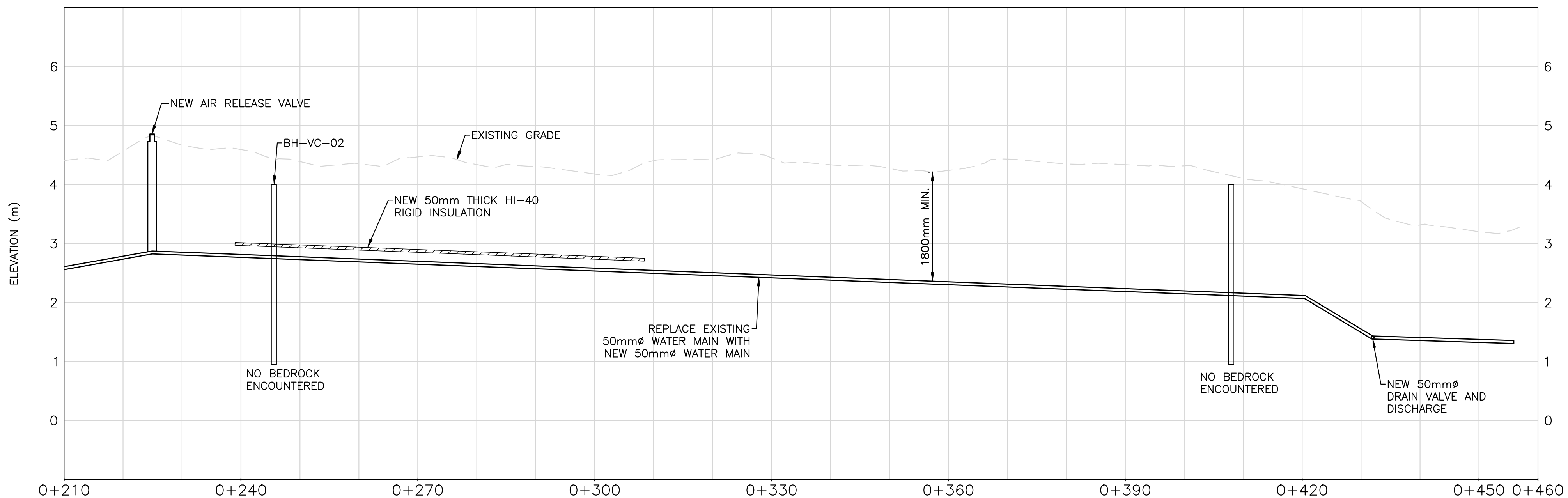


PLAN

SCALE: 1:500



NEWMAN SOUND VALVE TABLE				
POINT No.	VALVE	DESCRIPTION	EASTING	NORTHING
2	V2	AIR RELEASE VALVE	282391.6598	5384939.9747
3	V3	50mm $\phi$ VALVE	282577.0352	5384868.9785
4	V4	50mm $\phi$ CURB STOP	282598.6210	5384862.7440



PROFILE

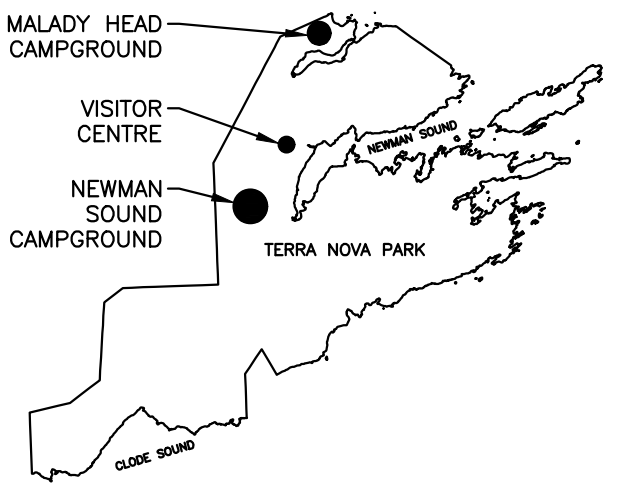
HORIZONTAL  
SCALE: 1:500



VERTICAL  
SCALE: 1:50

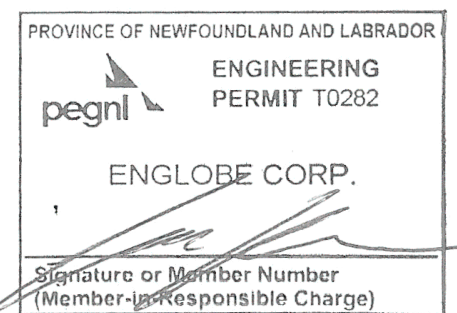


KEY PLAN



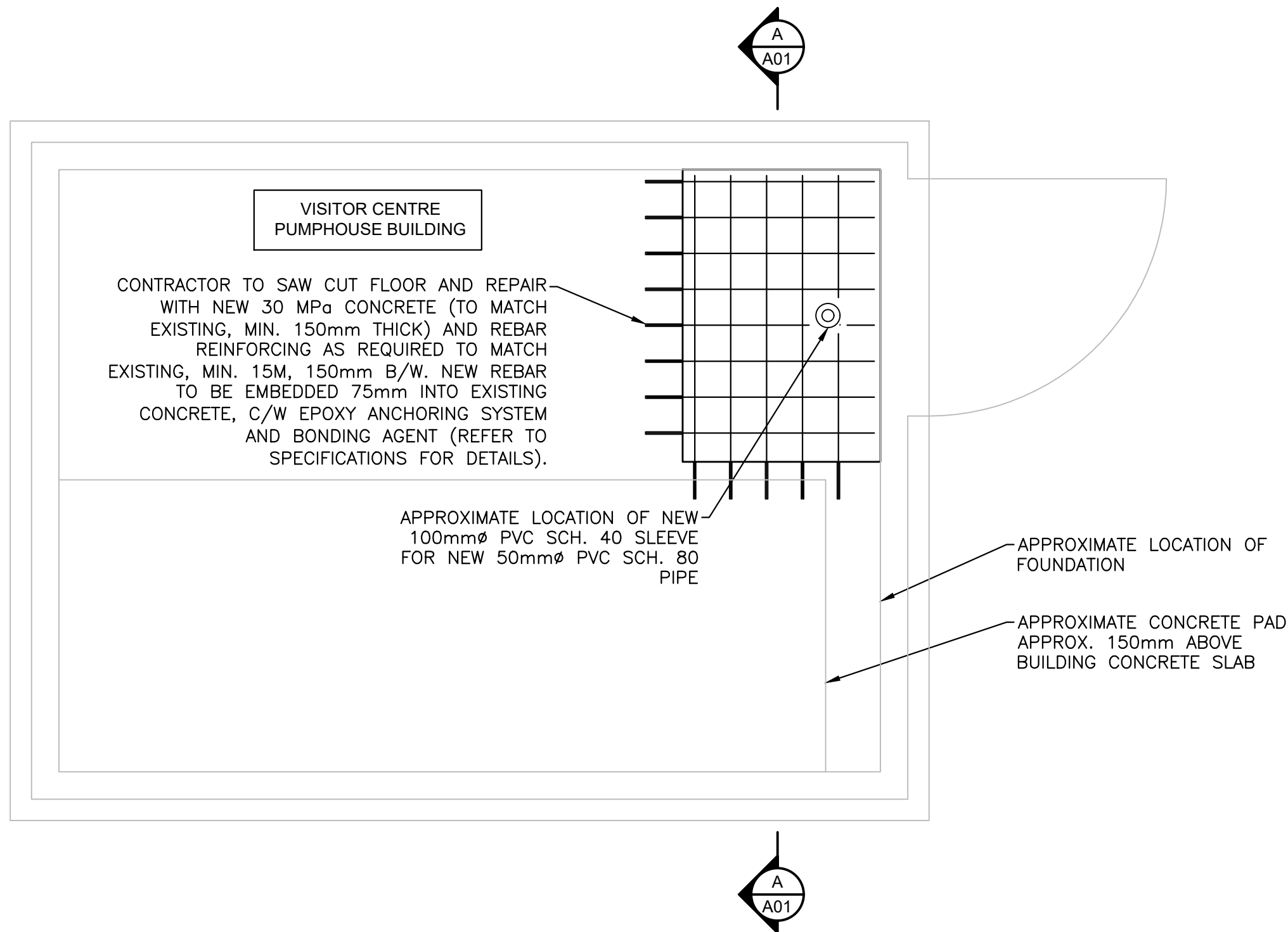
NOTES:

- ANY EXISTING BINS, SIGNS, FENCE, OR PARK FURNITURE SHALL BE CAREFULLY REMOVED AS NEEDED FOR CONSTRUCTION AND PUT BACK IN PLACE OR RELOCATED AS DIRECTED BY THE DEPARTMENTAL REPRESENTATIVE FOLLOWING CONSTRUCTION.
- GRAIL TRAIL SHALL BE REINSTATED AS NEEDED TO MATCH EXISTING WIDTHS WITH 100mm THICK GRANULAR A.



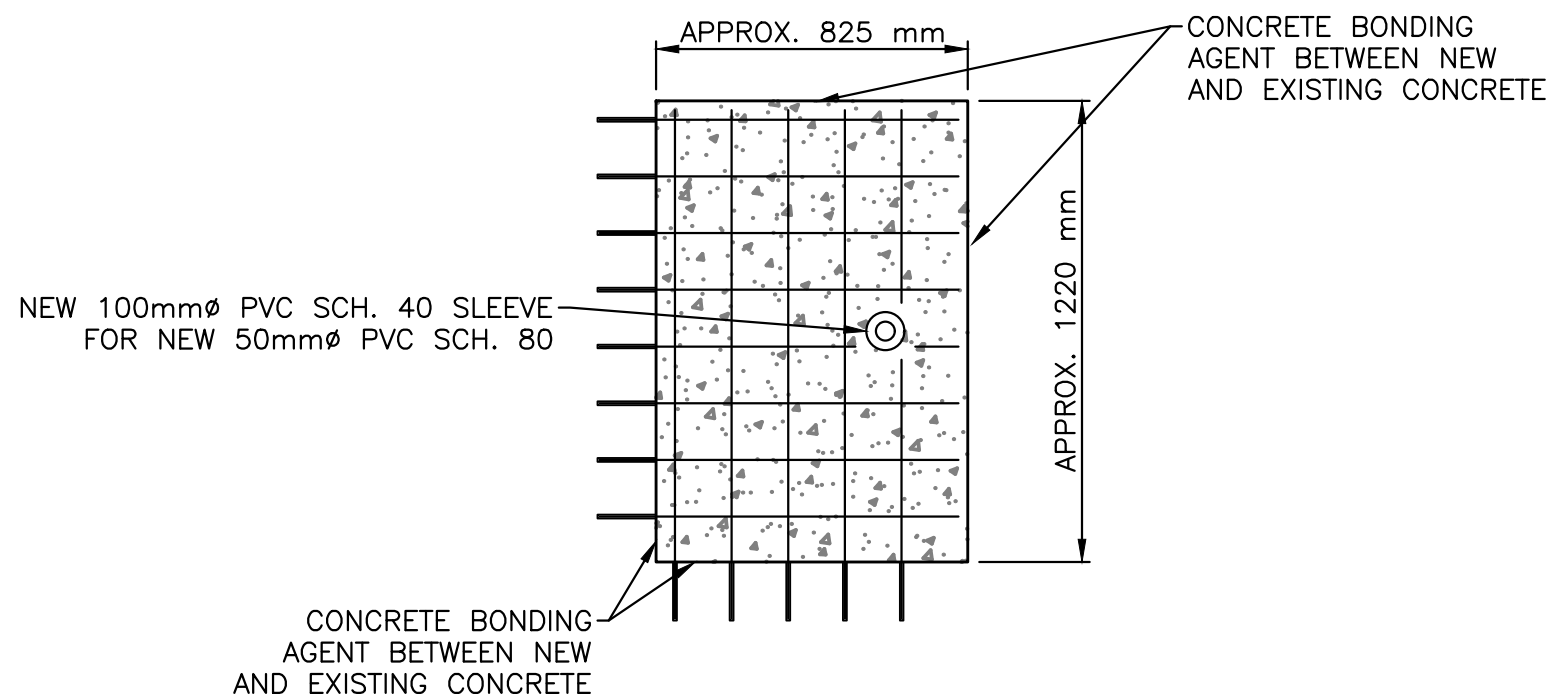
0.0	ISSUED FOR TENDER	05/31 2021
revisions		date
project	TERRA NOVA NATIONAL PARK UTILITY SYSTEMS RECAPITALIZATION PHASE 3	
drawing	WELL PUMPHOUSE TO TNNP VISITOR CENTRE WATER MAIN PLAN & PROFILE STA. 0+210 TO 0+460	
designed	A. MELANSON	conçu
date	2021-02-26	
drawn	S. ALLAIN	dessiné
date	2021-02-26	
approved	A. MELANSON	approuvé
date	2021-02-26	
Tender	Soumission	
PCA Project Manager	Administrateur de projets APC	
project number	1716	
drawing no.	VC-CW03	





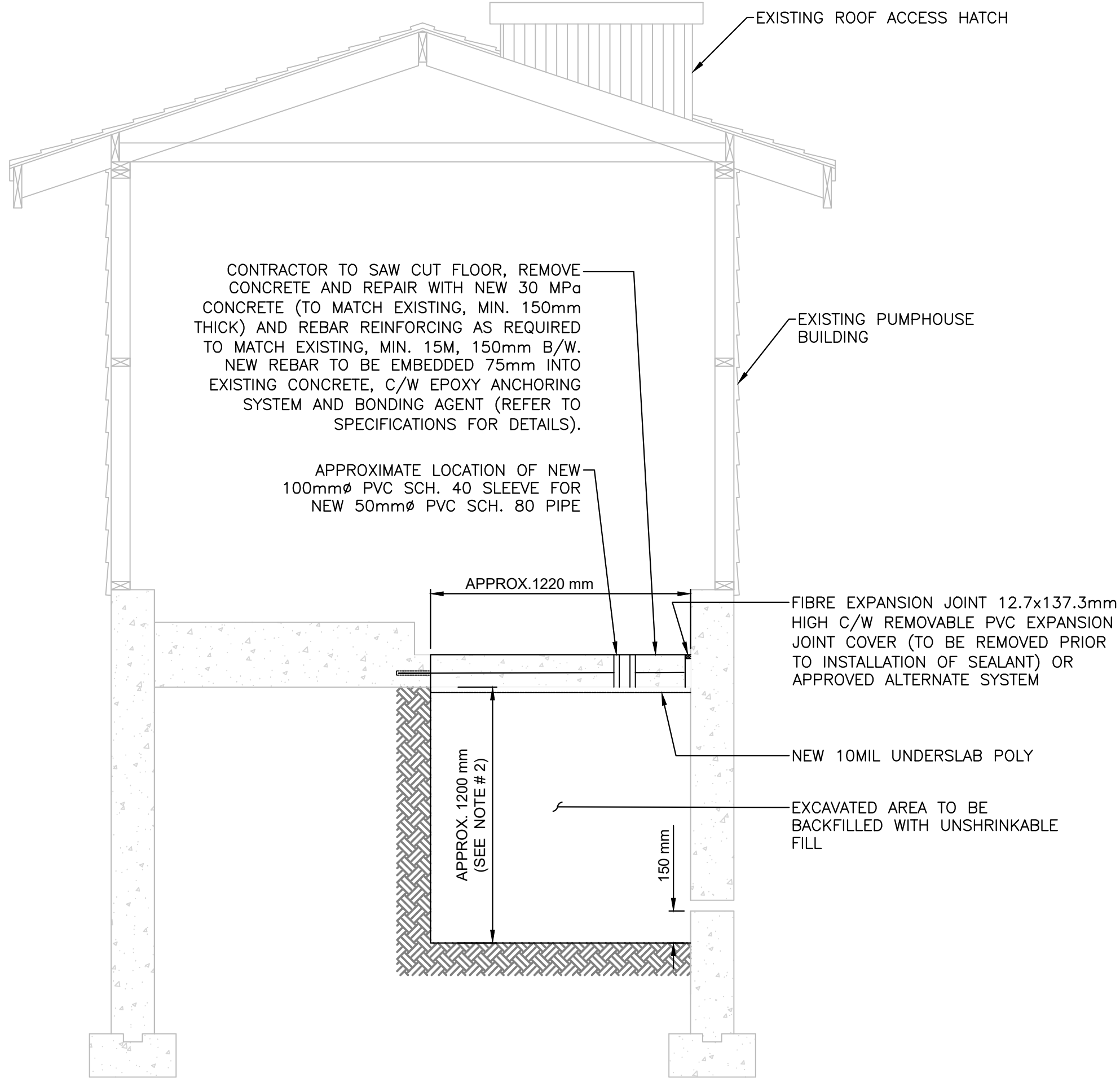
EXISTING FLOOR PLAN- FLOOR REPAIR DETAIL

SCALE : 1:20  
0mm 500mm 1000mm 1500mm 2000mm 2500mm



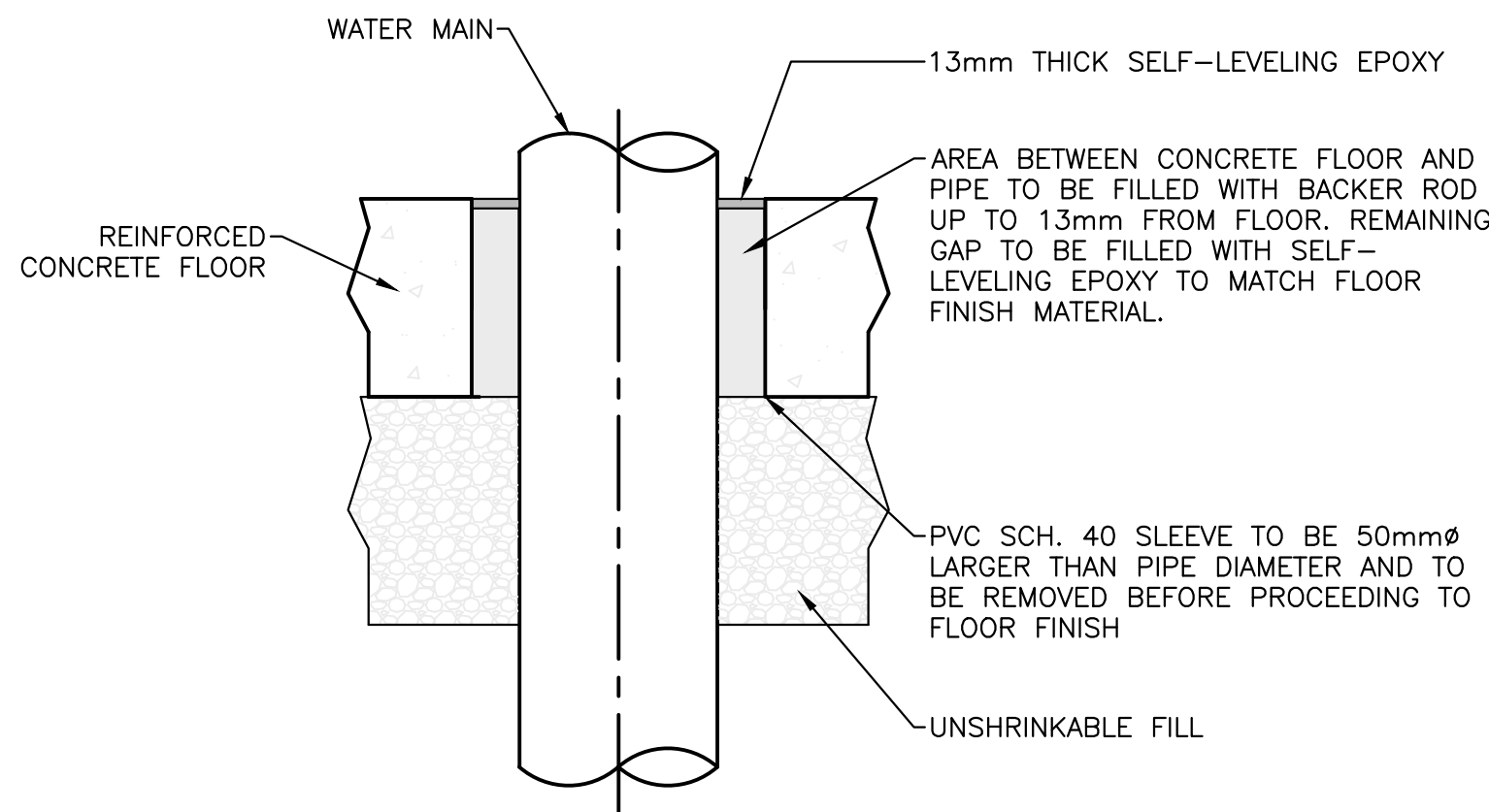
FLOOR REPAIR DETAIL

SCALE : 1:20  
0mm 500mm 1000mm 1500mm 2000mm 2500mm



EXISTING SECTION FLOOR REPAIR DETAIL

SCALE : 1:20  
0mm 500mm 1000mm 1500mm 2000mm 2500mm



PIPE THROUGH FLOOR  
DETAIL (N.T.S.)

- NOTES:
1. REFER TO DRAWING VC-M01 FOR MECHANICAL REMOVALS.
  2. EXACT DIMENSIONS OF SLAB REPAIR TO BE DETERMINED ON SITE FOLLOWING CONFIRMATION.
  3. EXACT LOCATION OF NEW PIPING TO BE COORDINATED WITH MECHANICAL.
  4. CONCRETE SHALL BE IN ACCORDANCE WITH SPECIFICATIONS.

0.0	ISSUED FOR TENDER	05/31/2021
revisions		date

project TERRA NOVA NATIONAL PARK UTILITY SYSTEMS RECAPITALIZATION PHASE 3

TERRA NOVA NATIONAL PARK

drawing WELL PUMPHOUSE TNNP VISITOR CENTRE EXISTING ARCHITECTURAL FLOOR PLAN & SECTION

designed	S. LEBLANC	conçu
date	2021-02-26	
drawn	D. DOUCETTE	dessiné
date	2021-02-26	
approved	S. SAVOIE	approuvé
date	2021-02-26	

Tender Soumission

PCA Project Manager Administrateur de projets APC

project number no. du projet

1716

drawing no. no. du dessin

VC-A01



0.0	ISSUED FOR TENDER	05/31 2021
revisions		date

project	TERRA NOVA NATIONAL PARK UTILITY SYSTEMS RECAPITALIZATION PHASE 3	projet
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TERRA NOVA NATIONAL PARK

drawing dessin

WELL PUMPHOUSE  
TNNP VISITOR CENTRE  
EXISTING MECHANICAL  
REMOVALS

designed	S. LEBLANC	conçu
date	2021-02-26	
drawn	D. DOUCETTE	dessiné
date	2021-02-26	
approved	S. SAVOIE	approuvé
date	2021-02-26	
Tender		Soumission

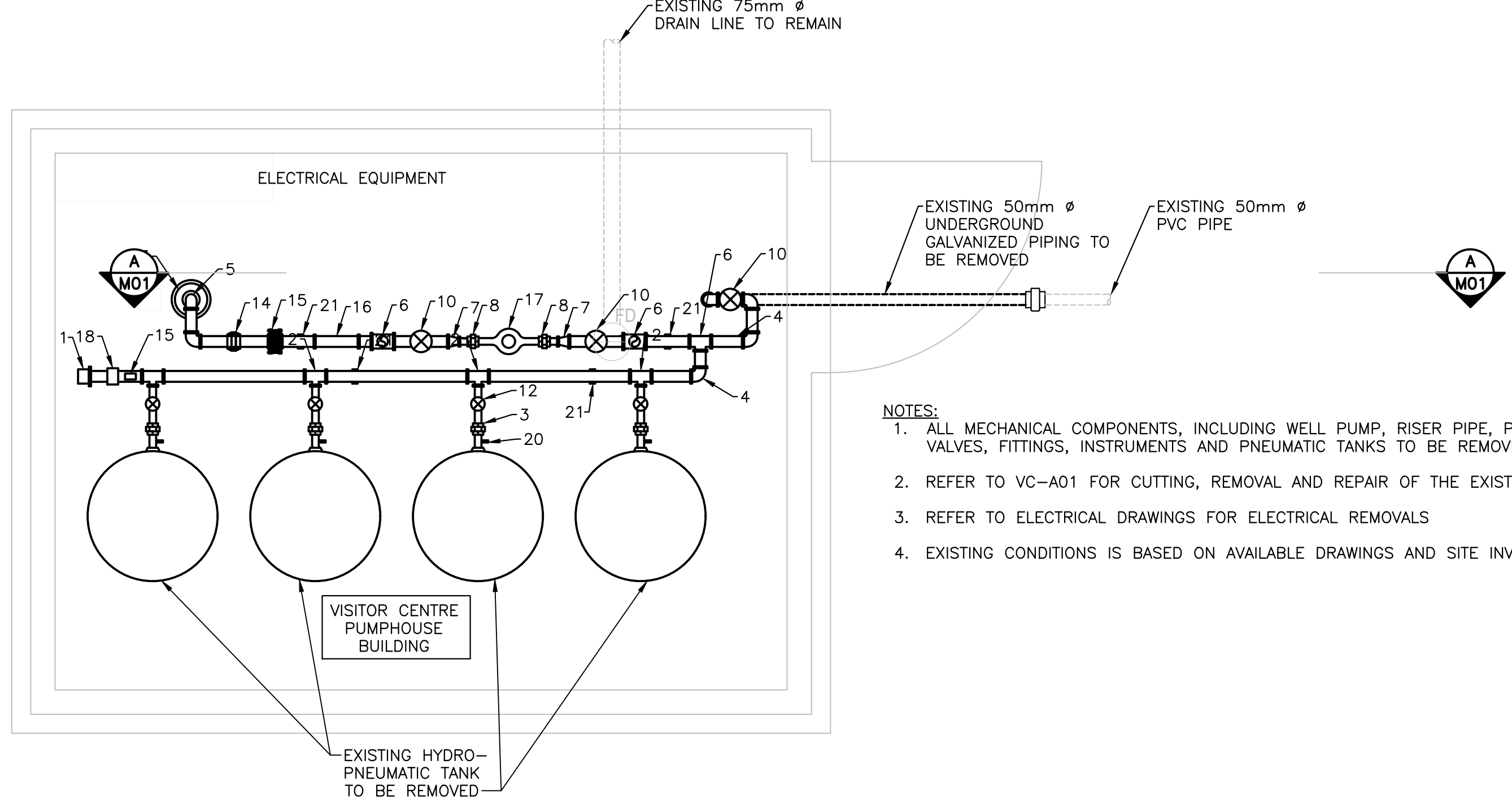
PCA Project Manager Administrateur de projets APC

project number no. du projet

1716

drawing no. no. du dessin

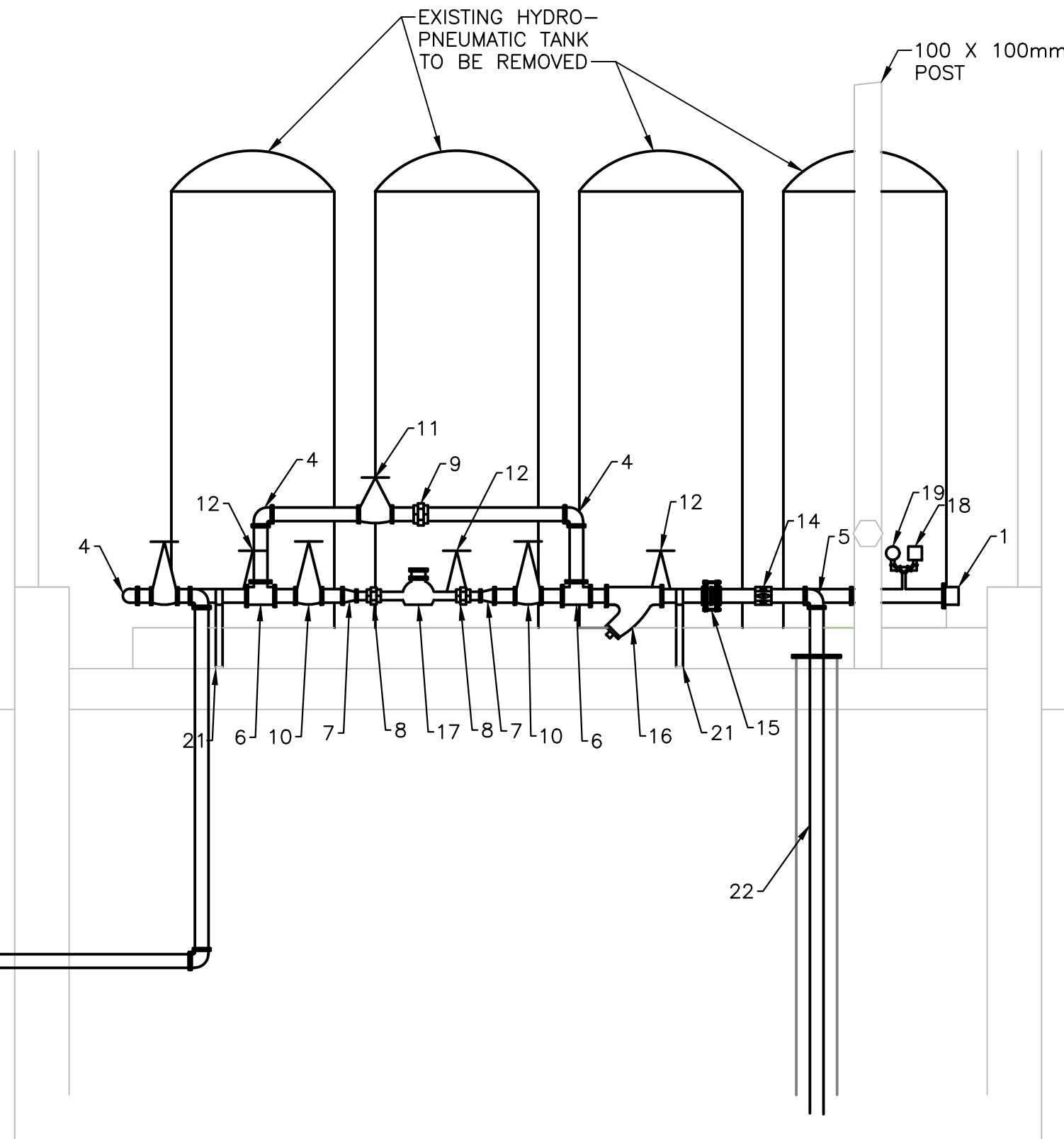
VC-M01



- NOTES:
1. ALL MECHANICAL COMPONENTS, INCLUDING WELL PUMP, RISER PIPE, PROCESS PIPING, VALVES, FITTINGS, INSTRUMENTS AND PNEUMATIC TANKS TO BE REMOVED AND DISPOSED OF.
  2. REFER TO VC-A01 FOR CUTTING, REMOVAL AND REPAIR OF THE EXISTING CONCRETE SLAB.
  3. REFER TO ELECTRICAL DRAWINGS FOR ELECTRICAL REMOVALS
  4. EXISTING CONDITIONS IS BASED ON AVAILABLE DRAWINGS AND SITE INVESTIGATION.

EXISTING MECHANICAL FLOOR  
PLAN-REMOVALS

SCALE : 1:20  
0mm 500mm 1000mm 1500mm 2000mm 2500mm

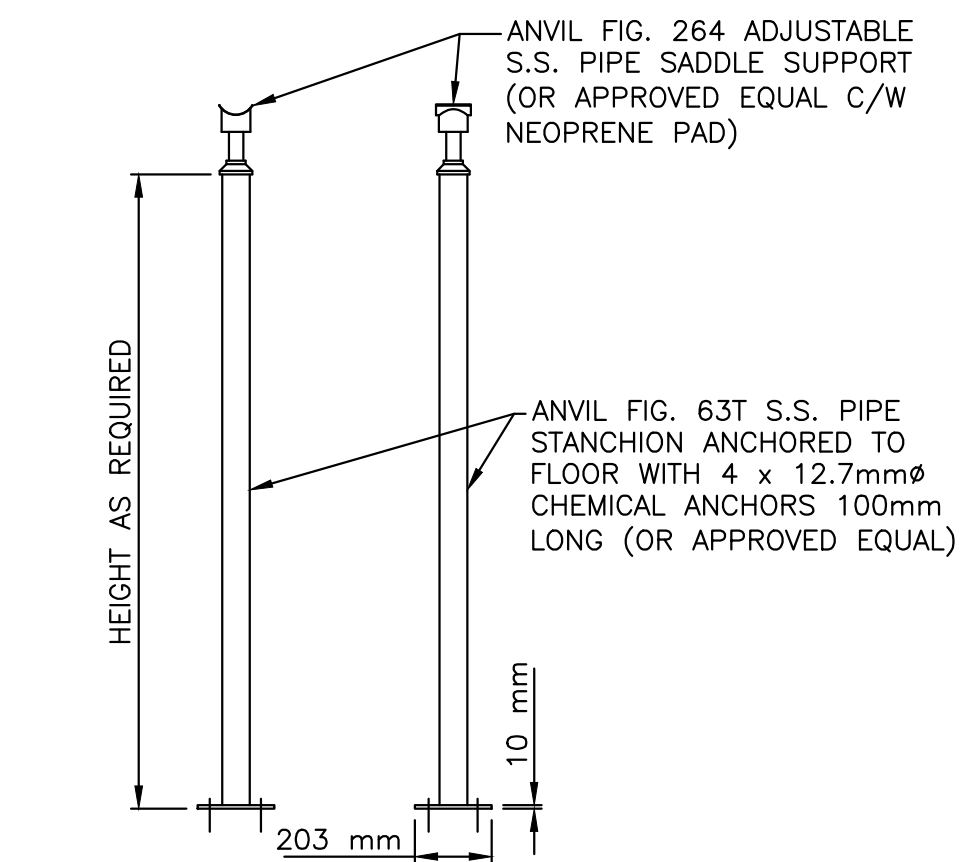


1. EXISTING CAP TO BE REMOVED
2. EXISTING REDUCING TEE TO BE REMOVED
3. EXISTING 1 1/2" UNION TO BE REMOVED
4. EXISTING ELBOW TO BE REMOVED
5. EXISTING REDUCING ELBOW 90° TO BE REMOVED
6. EXISTING TEE TO BE REMOVED
7. EXISTING REDUCER TO BE REMOVED
8. EXISTING 3/4" UNION TO BE REMOVED
9. EXISTING 2" UNION TO BE REMOVED
10. EXISTING GATE VALVE TO BE REMOVED
11. EXISTING GLOBE VALVE TO BE REMOVED
12. EXISTING GATE VALVE TO BE REMOVED
13. EXISTING SANITARY WELL CAP TO BE REMOVED
14. EXISTING VICTAULIC COUPLING TO BE REMOVED
15. EXISTING SLOW CLOSING CHECK VALVE TO BE REMOVED
16. EXISTING STRAINER TO BE REMOVED
17. EXISTING METER TO BE REMOVED
18. EXISTING PRESSURE SWITCH TO BE REMOVED
19. EXISTING PRESSURE GAUGE TO BE REMOVED
20. EXISTING AIR VALVE TO BE REMOVED
21. EXISTING PIPE SUPPORT TO BE REMOVED
22. EXISTING RISER PIPE TO BE REMOVED

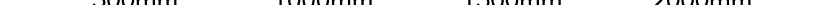
EXISTING MECHANICAL  
SECTION-REMOVALS

SCALE : 1:20  
0mm 500mm 1000mm 1500mm 2000mm 2500mm



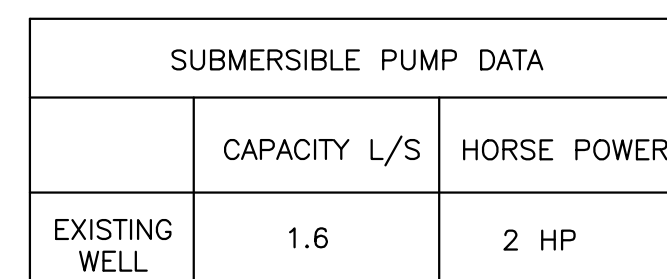


SCALE : 1:20



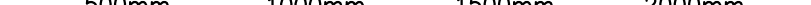
0mm 500mm 1000mm 1500mm 2000mm 2500mm

ALL PIPING AND FITTINGS  
INSIDE THE BUILDING IS PVC SCH. 80



## NEW MECHANICAL SECTION

SCALE : 1:20

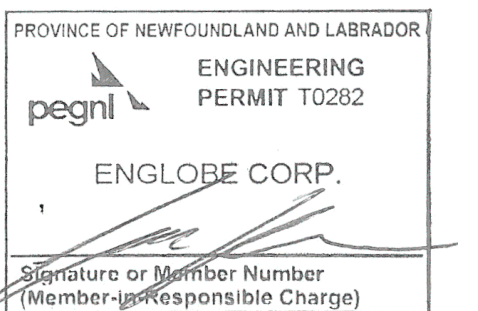


0mm 500mm 1000mm 1500mm 2000mm 2500mm

1. ALL MECHANICAL COMPONENTS SHALL BE NEW UNLESS OTHERWISE NOTED.
2. CONTRACTOR TO CONFIRM ELEVATION OF EXISTING WELL PUMP INTAKE. NEW WELL PUMP SHALL BE INSTALLED AT THE SAME ELEVATION.
3. PIPING ELEVATION TO BE CONFIRMED ON SITE BASED ON EXISTING CONCRETE PAD ELEVATION AND PNEUMATIC TANK PIPE CONNECTION.
4. EXISTING EXTERIOR HOSE BIB TO BE CONNECTED TO NEW PIPING.



Englobe



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project	projet
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project

TERRA NOVA  
NATIONAL PARK  
UTILITY SYSTEMS  
RECAPITALIZATION  
PHASE 3

project

TERRA NOVA NATIONAL PARK

drawing	dessin
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**WELL PUMPHOUSE  
TNNP VISITOR CENTRE  
NEW MECHANICAL LAYOUTS  
& WELL PUMP INSTALLATION**

designed	S. LERBLANC	conçu
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date 2021-02-26

drawn D. DOUCETTE dessiné

2021-02-26

date	2021-02-20
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approved S. SAVOIE approuve

date	2021-02-26
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Tender	Soumission
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PCA, Project Manager                      Administrateur de projets ABC

FCA Project Manager	Administrateur de projets APC
project number	no. du projet

1716

1 / 16

drawing no.	no. du dessin
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VC M03

VC=MOZ

\_\_\_\_\_

ANSI D

0 10 20mm 40 60 80 100 120 140 160 180 200mm



0.0	ISSUED FOR TENDER	05/31/2021
revisions		date

project  
**TERRA NOVA NATIONAL PARK  
UTILITY SYSTEMS  
RECAPITALIZATION  
PHASE 3**  
project

TERRA NOVA NATIONAL PARK  
drawing    dessin

**WELL PUMPHOUSE  
TNVP VISITOR CENTRE  
ELECTRICAL DEMOLITION  
AND CONSTRUCTION PLAN**

designed G. SMITH    conçu

date 2021-06-02

drawn G. SMITH    dessiné

date 2021-06-02

approved D. DOW    approuvé

date 2021-06-03

Tender    Soumission

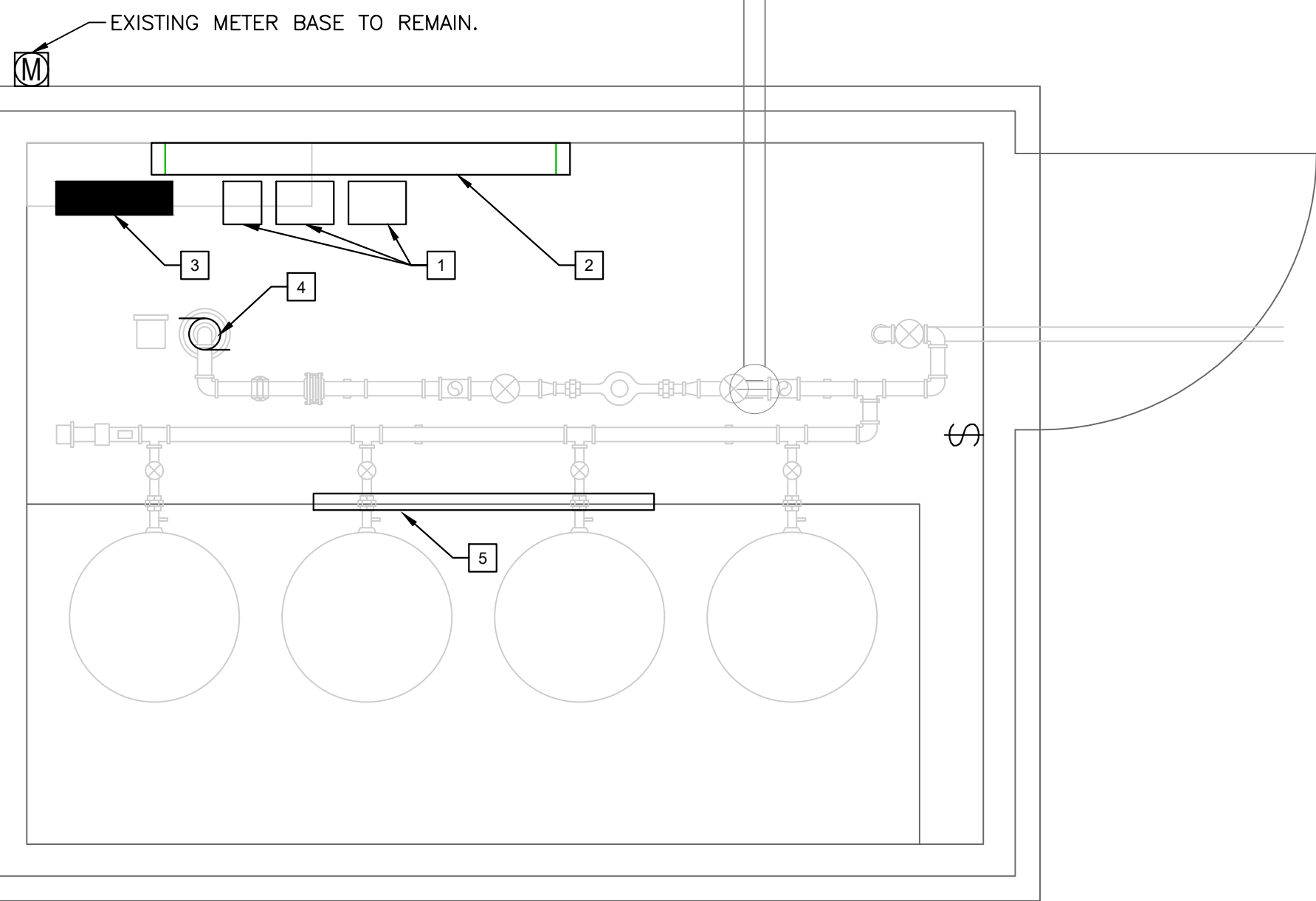
PCA Project Manager    Administrateur de projets APC

project number    no. du projet

1716

drawing no.    no. du dessin

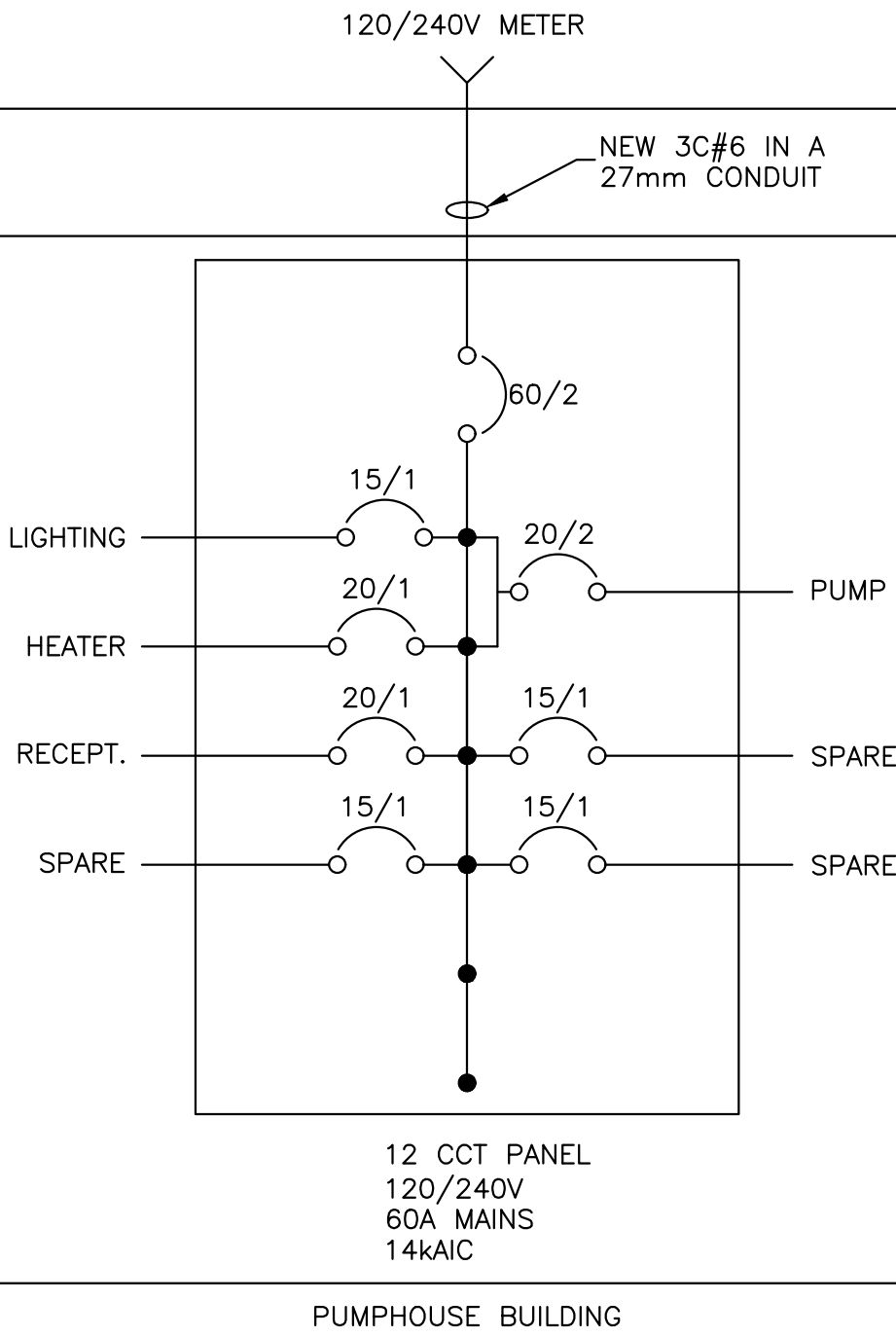
VC-E01



**A PUMPHOUSE ELECTRICAL DEMOLITION PLAN**  
SCALE: 1:20

**DETAIL A NOTES:**

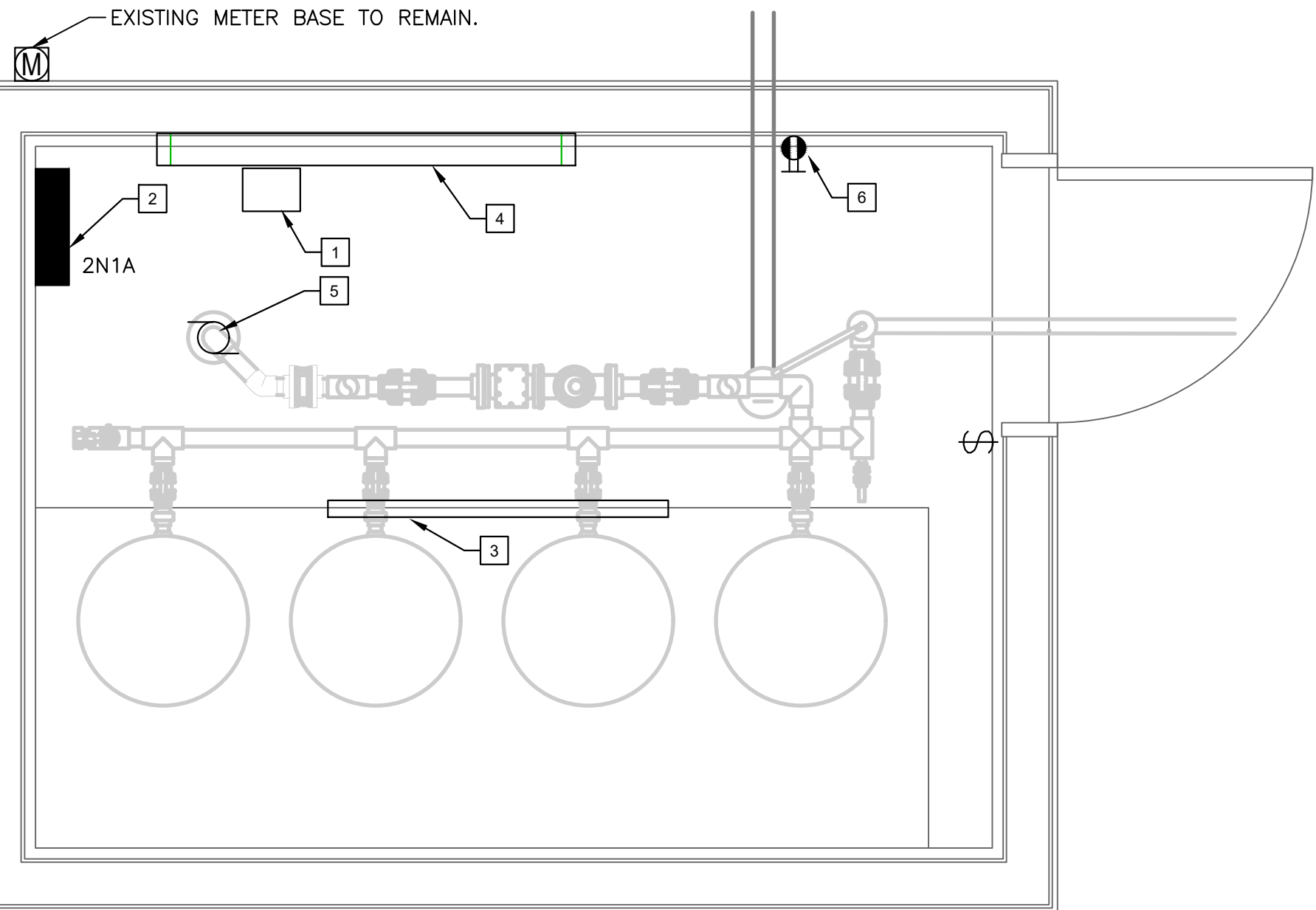
1. ALL ELECTRICAL EQUIPMENT, CONDUIT AND CONDUCTORS WITHIN PUMP HOUSE TO BE DEMOLISHED BACK TO SOURCE. EXISTING SERVICE METER TO REMAIN.
2. RETURN DISTRIBUTION PANEL, PUMP CONTROLS AND SENSORS TO CLIENT.
3. EXISTING EQUIPMENT INCLUDES BUT IS NOT LIMITED TO:
  - 1 PUMP CONTROLS
  - 2 BASE BOARD HEATER
  - 3 8 CCT DISTRIBUTION PANEL
  - 4 PUMP LOCATION
  - 5 SUSPENDED LUMINAIRE



**C PANEL 2N1A DETAIL**  
SCALE : N.T.S.

**LEGEND:**

- 1220mm LUMINAIRE
- MOTOR
- 20A GFI RECEPTACLE
- ELECTRIC BASE BOARD HEATER
- SERVICE METER
- LIGHTING SWITCH

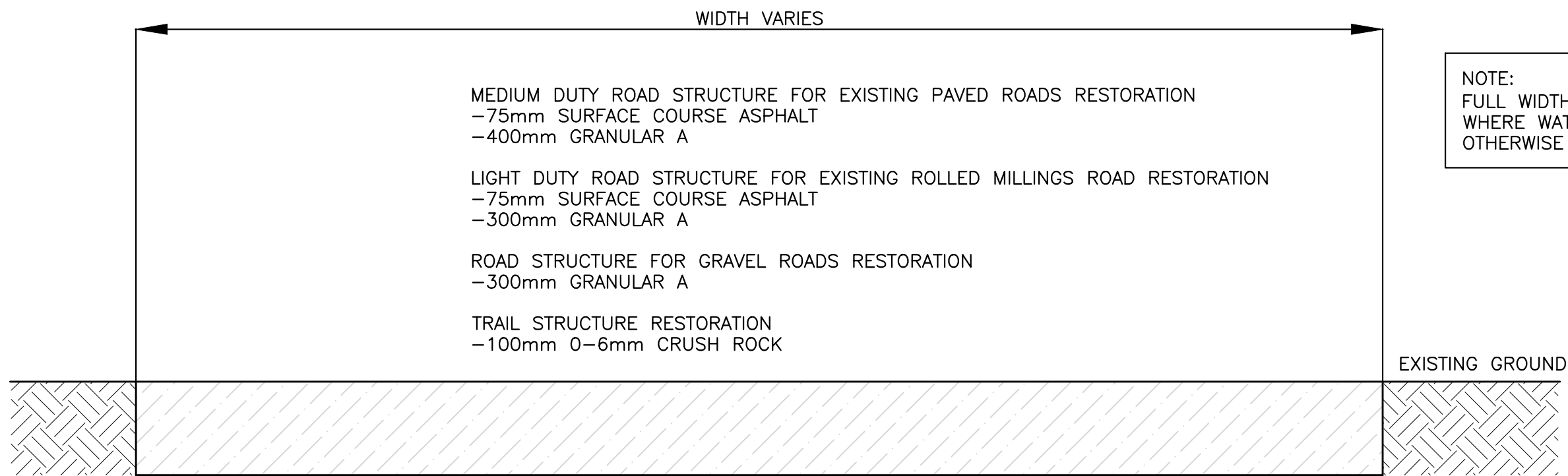


**B PUMPHOUSE ELECTRICAL PLAN**  
SCALE: 1:20

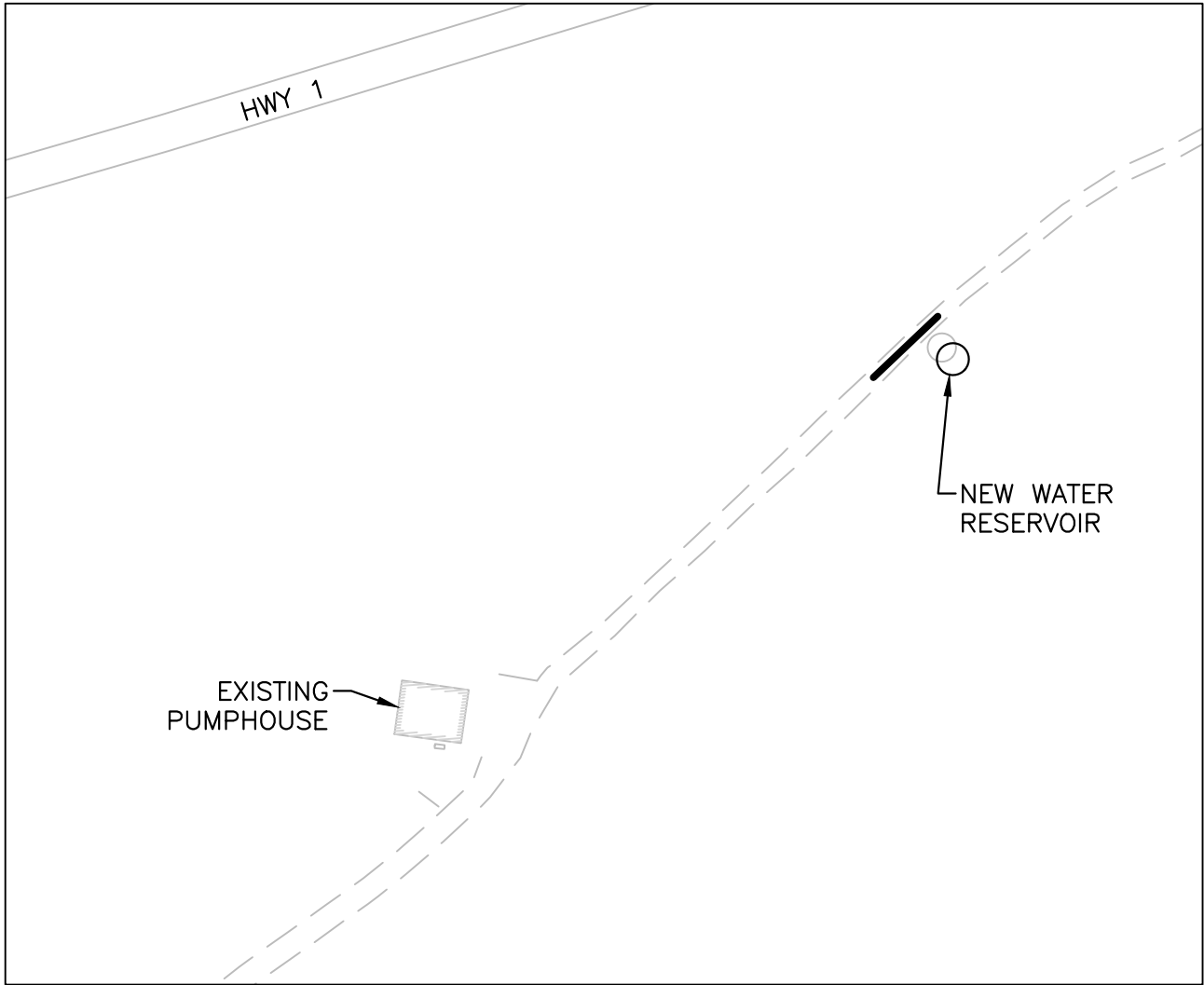
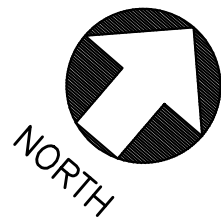
**DETAIL B KEYNOTES:**

- 1 NEW PUMP CONTROL PANEL INSTALLED BY MECHANICAL CONTRACTOR. POWER BY ELECTRICAL CONTRACTOR.
- 2 SUPPLY AND INSTALL A NEW 12 CIRCUIT 60A, 240V, 1PH SERVICE RATED PANEL WITH MAIN BREAKER.
- 3 SUPPLY AND INSTALL NEW 4' SUSPENDED LED LUMINAIRE. LITHONIA No. CLX L48 4000LM SEF FDL 120 40K 80CRI. OR APPROVED EQUAL
- 4 SUPPLY AND INSTALL NEW 1000W ELECTRIC BASEBOARD HEATER C/W INTERNAL THERMOSTAT. MOUNT ABOVE FOUNDATION WALL.
- 5 SUPPLY AND INSTALL 2#12AWG + BND IN A 21mm EMT CONDUIT TO NEW 2hp, 1PH, 208V PUMP. PROVIDE POWER FROM CONTROLLER TO LEVEL TRANSDUCER AND PRESSURE SWITCH. COORDINATE WITH MECHANICAL CONTRACTOR FOR EXACT LOCATIONS.
- 6 NEW 20A GFI RECEPTACLE MOUNTED ABOVE FOUNDATION WALL.

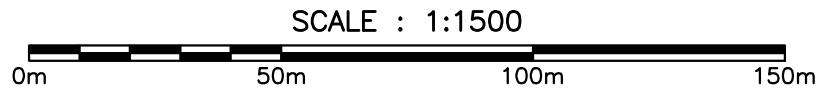




NOTE:  
FULL WIDTH ROAD/TRAIL RECONSTRUCTION TO BE COMPLETED WHERE WATER OR SEWER MAIN IS BEING INSTALLED UNLESS OTHERWISE DIRECTED BY DEPARTMENTAL REPRESENTATIVE.

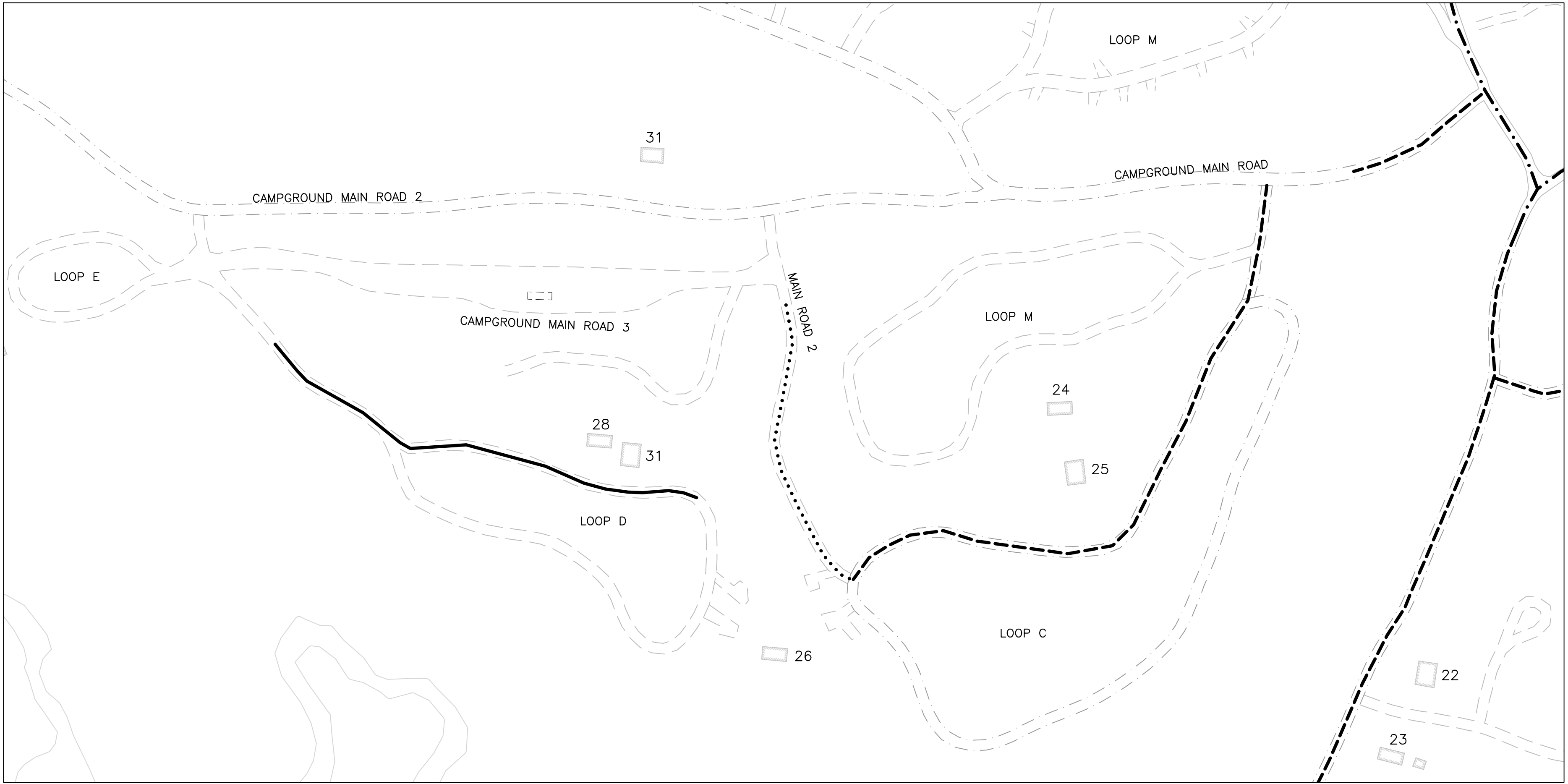
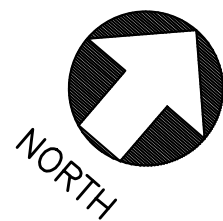


NEWMAN SOUND ROAD RECONSTRUCTION  
IDENTIFICATION PLAN 1

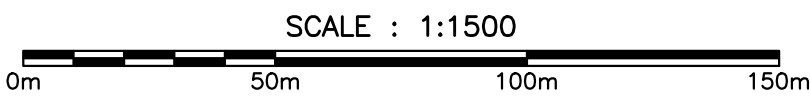


ROAD RECONSTRUCTION LEGEND:

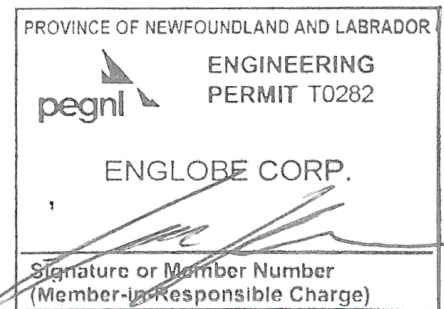
- MEDIUM DUTY ASPHALT ROAD STRUCTURE
- LIGHT DUTY ASPHALT ROAD STRUCTURE
- GRAVEL ROAD STRUCTURE
- ..... REMOVE ANY REMAINING ROAD STRUCTURE AND REPLACE WITH GRUBBINGS



NEWMAN SOUND ROAD RECONSTRUCTION  
IDENTIFICATION PLAN 2



SEE DRAWING D02 FOR  
CONTINUATION ON PLAN 3



0.0	ISSUED FOR TENDER	05/31 2021
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project	project	
TERRA NOVA NATIONAL PARK UTILITY SYSTEMS RECAPITALIZATION PHASE 3		
TERRA NOVA NATIONAL PARK		
drawing	dessin	
NEWMAN SOUND ROAD RECONSTRUCTION IDENTIFICATION PLANS 1 & 2 AND DETAIL		
designed	A. MELANSON	conçu
date	2021-04-30	
drawn	S. ALLAIN	dessiné
date	2021-04-30	
approved	A. MELANSON	approuvé
date	2021-04-30	
Tender	Soumission	
PCA Project Manager	Administrateur de projets APC	
project number	no. du projet	
1716		
drawing no.	no. du dessin	
D01		





SEE DRAWING D01 FOR  
CONTINUATION ON PLAN 2

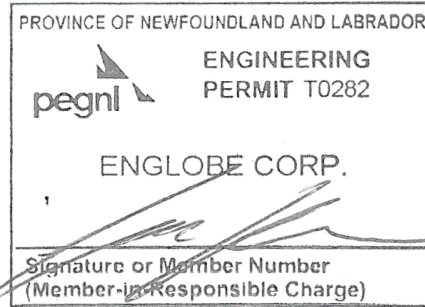
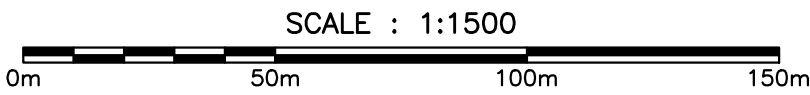


ROAD RECONSTRUCTION LEGEND:

- MEDIUM DUTY ASPHALT ROAD STRUCTURE
- - - LIGHT DUTY ASPHALT ROAD STRUCTURE
- GRAVEL ROAD STRUCTURE
- ..... REMOVE ANY REMAINING ROAD STRUCTURE AND REPLACE WITH GRUBBINGS

NOTE:  
SEE TYPICAL ROAD/TRAIL RECONSTRUCTION  
DETAIL ON DRAWING D01

NEWMAN SOUND ROAD RECONSTRUCTION  
IDENTIFICATION PLAN 3



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project	project	
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TERRA NOVA NATIONAL PARK		
drawing	dessin	
NEWMAN SOUND ROAD RECONSTRUCTION IDENTIFICATION PLAN 3		
designed	A. MELANSON	conçu
date	2021-04-30	
drawn	S. ALLAIN	dessiné
date	2021-04-30	
approved	A. MELANSON	approuvé
date	2021-04-30	
Tender	Soumission	
PCA Project Manager	Administrateur de projets APC	
project number	no. du projet	
1716		
drawing no.	no. du dessin	
D02		



0.0	ISSUED FOR TENDER	05/31 2021
revisions		date

project	TERRA NOVA NATIONAL PARK UTILITY SYSTEMS RECAPITALIZATION PHASE 3	projet
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drawing	TERRA NOVA NATIONAL PARK	dessin
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## TYPICAL DETAILS

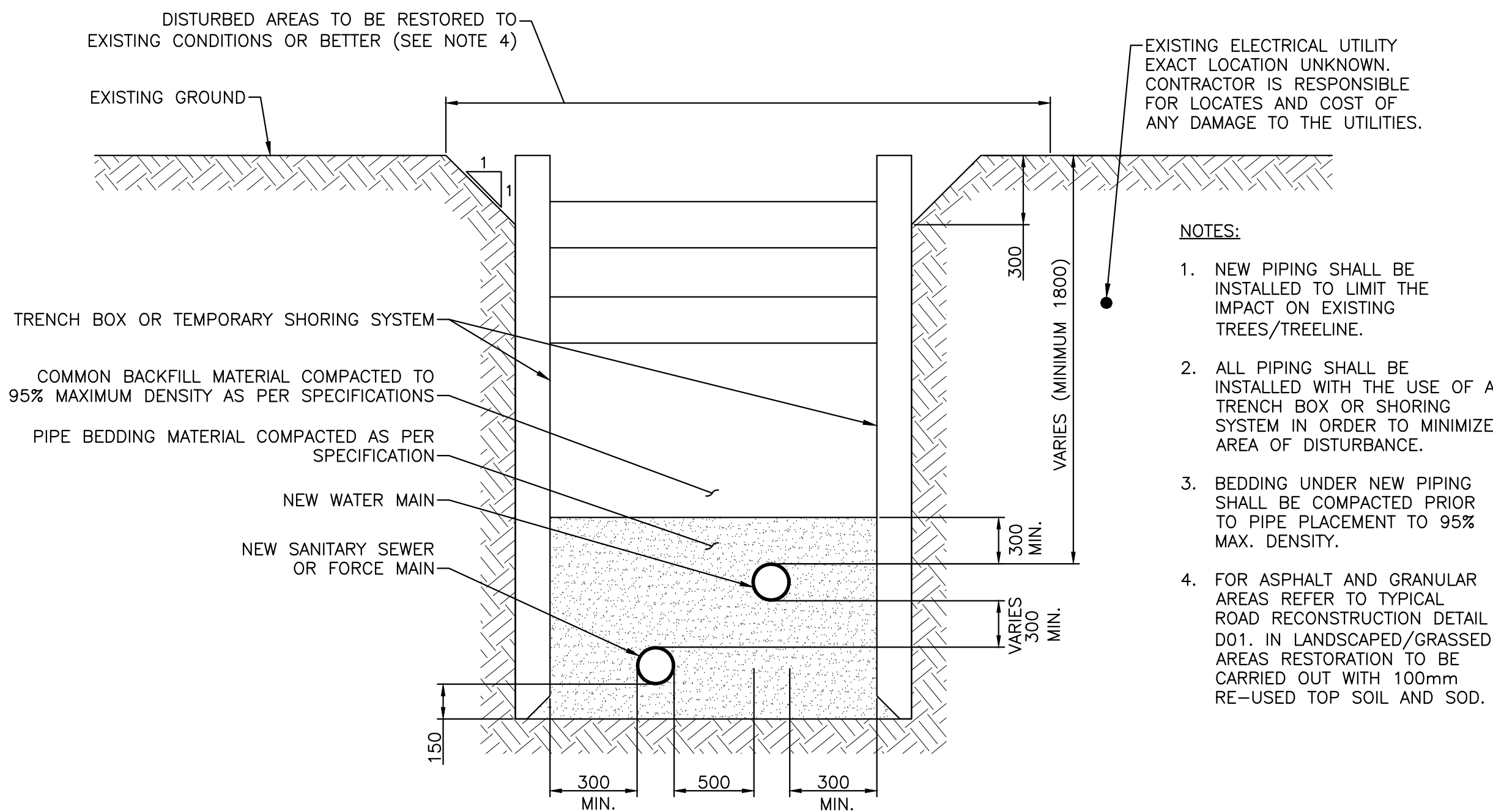
designed	A. MELANSON	conçu
date	2021-02-26	
drawn	S. ALLAIN	dessiné
date	2021-02-26	
approved	A. MELANSON	approuvé
date	2021-02-26	
Tender		Soumission

PCA Project Manager	Administrateur de projets APC
project number	no. du projet

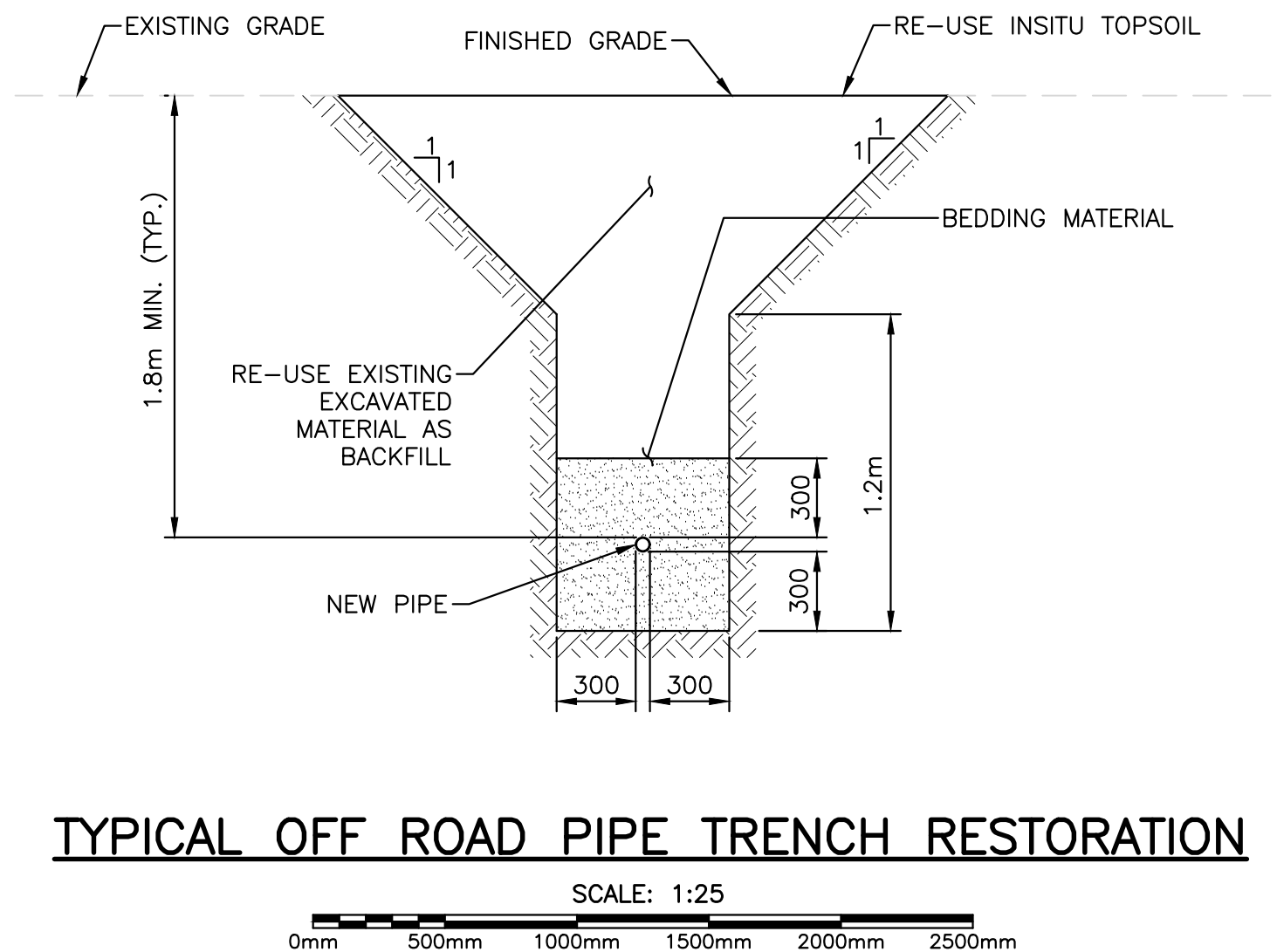
1716

drawing no.	no. du dessin
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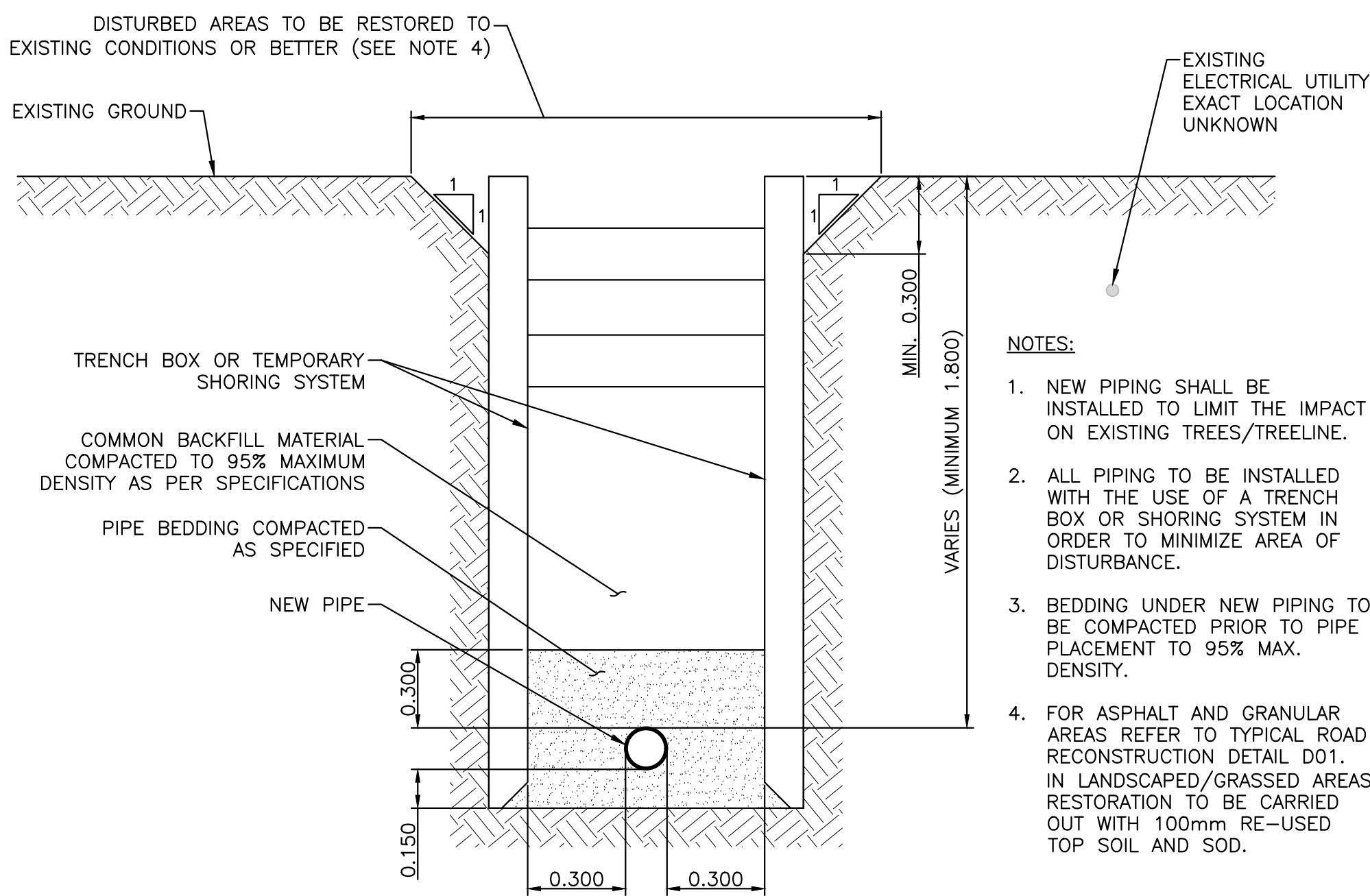
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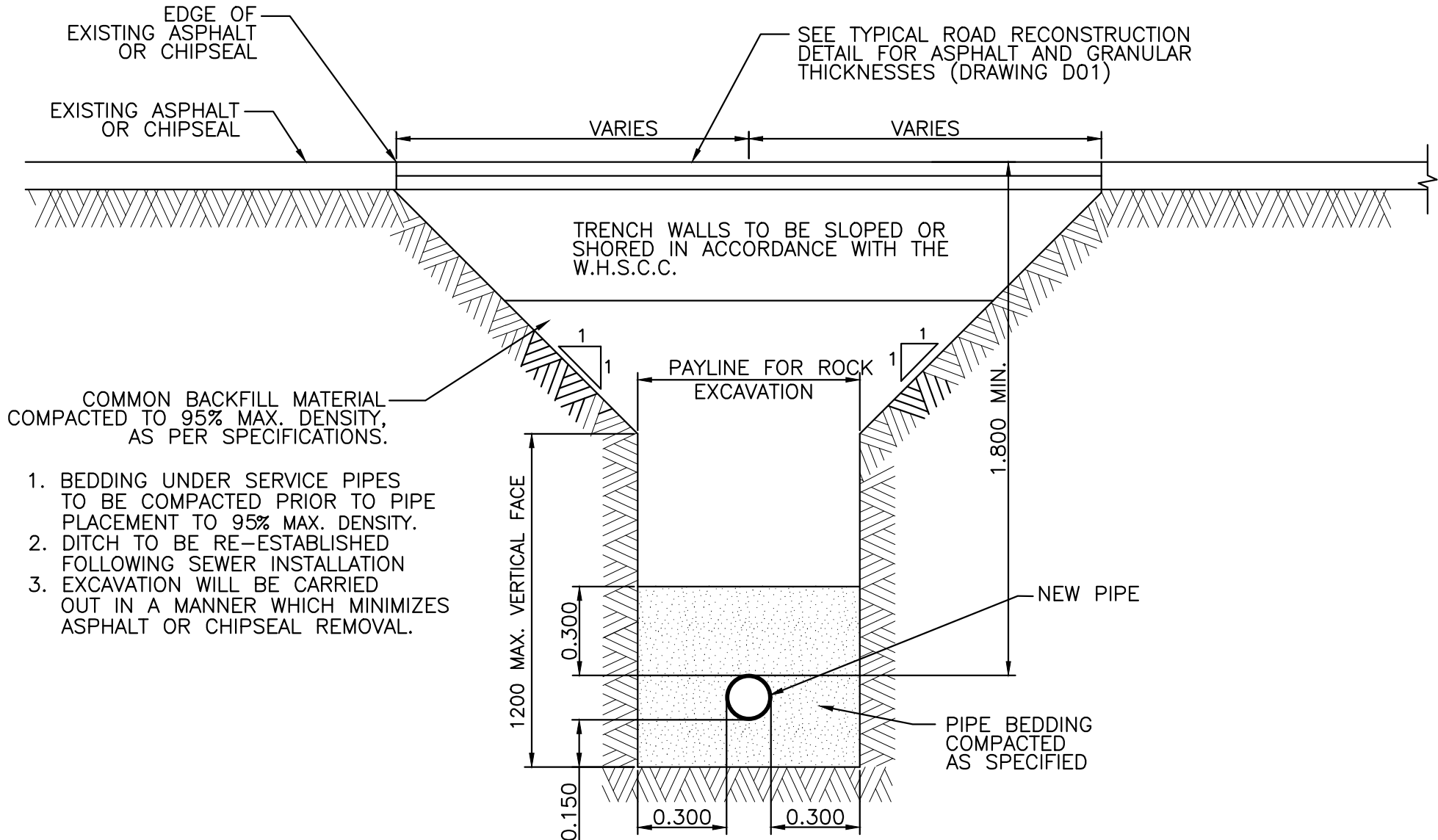
DETAIL - WATER AND SEWER TYPICAL TRENCH



TYPICAL OFF ROAD PIPE TRENCH RESTORATION



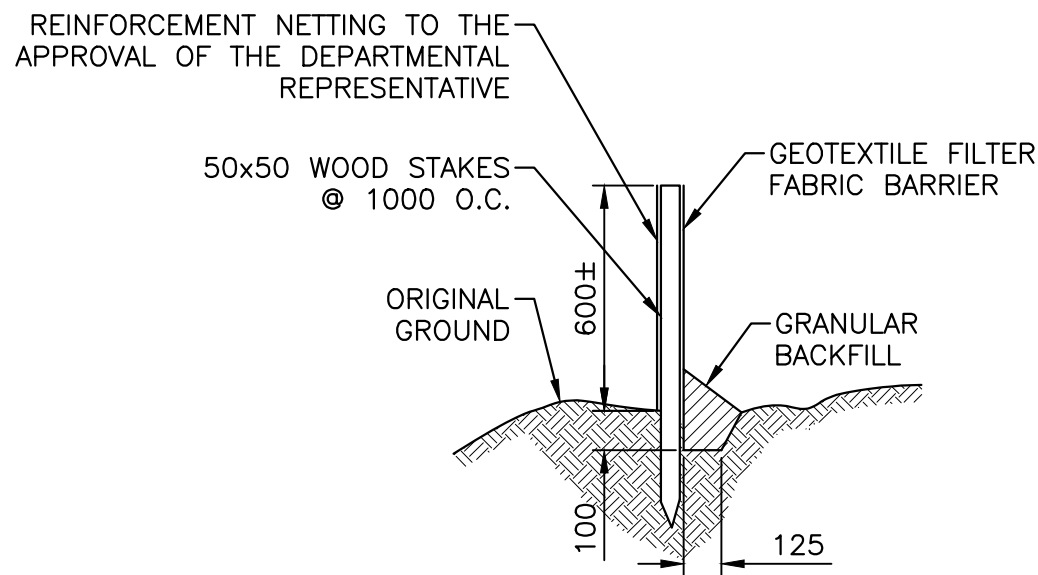
DETAIL - SINGLE PIPE TRENCH WITH TRENCH BOX



DETAIL - SINGLE PIPE TRENCH PAVED AREAS

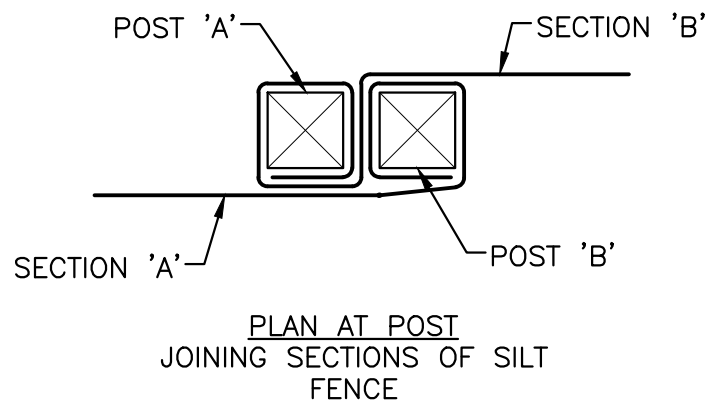
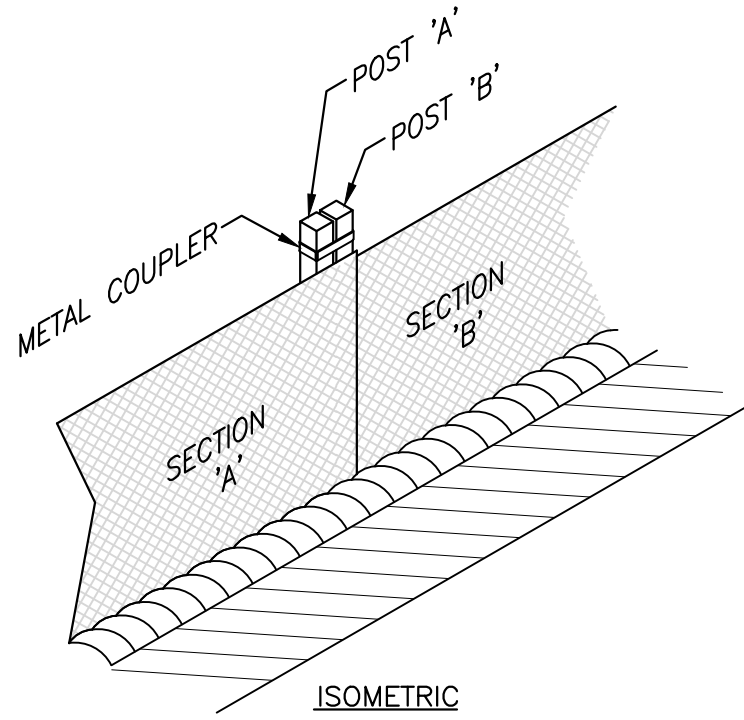
N.T.S.





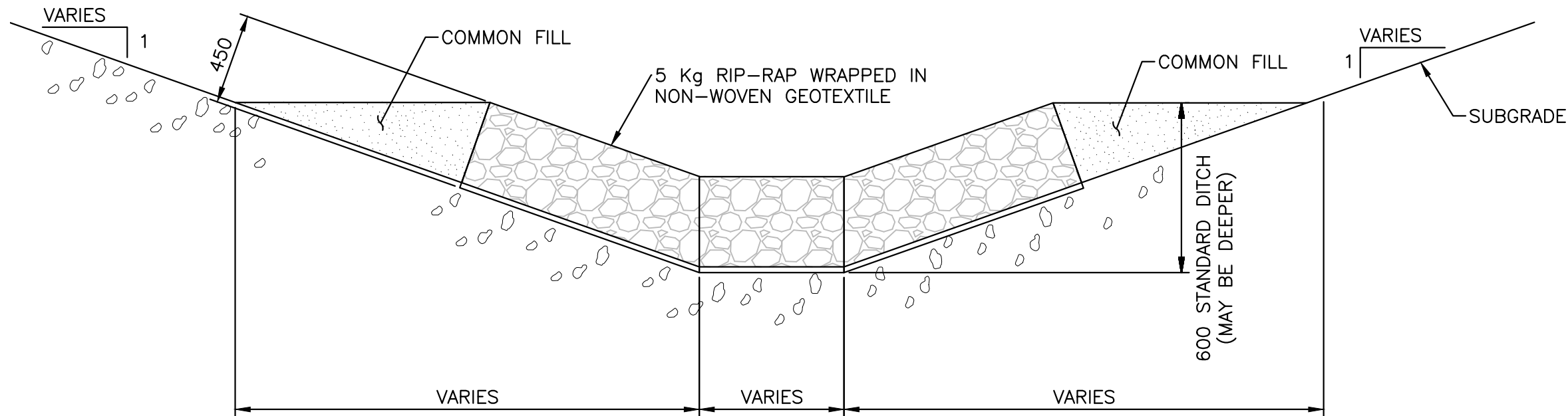
SILT FENCE INSTALLATION

1. EXCAVATE 150 x 150 TRENCH WHERE INDICATED.
2. UNROLL SILT FENCE ONE SECTION AT A TIME AND POSITION POSTS AGAINST THE DOWNSTREAM WALL OF THE TRENCH. REINFORCEMENT NETTING MUST BE ON THE DOWNSTREAM SIDE OF FLOW DIRECTION.
3. DRIVE POST INTO THE GROUND UNTIL THE REINFORCEMENT NETTING IS APPROXIMATELY 50mm FROM THE TRENCH BOTTOM.
4. LAY THE TOE-IN FLAP OF THE FABRIC IN THE BOTTOM OF THE TRENCH. BACKFILL THE TRENCH AND TAMP THE SOIL.
5. JOIN SILT FENCE SECTIONS AS SHOWN ABOVE.



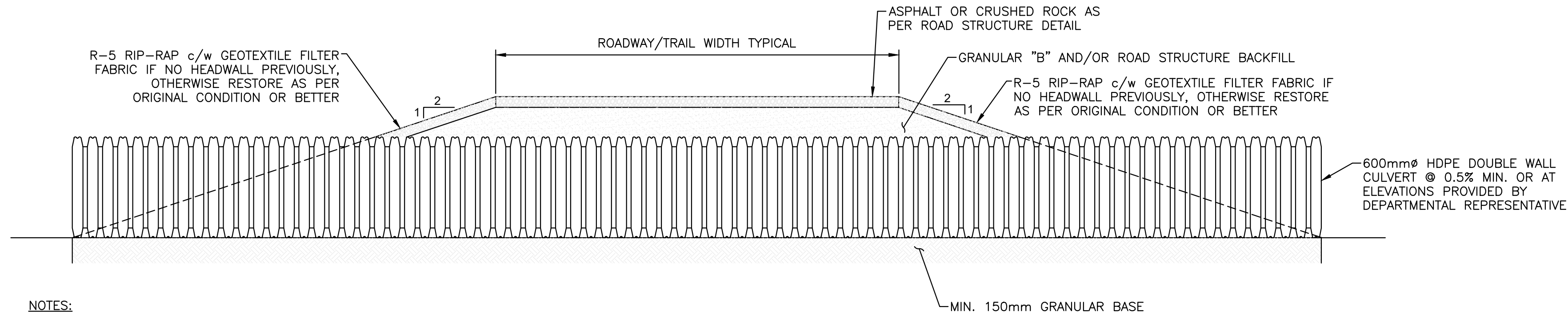
**SILT FENCE INSTALLATION (TYP.)**

SCALE: N.T.S.



**DETAIL – DITCH EROSION CONTROL STRUCTURE**

N.T.S.



**DETAIL – TYPICAL CULVERT**

N.T.S.

**NOTES:**

1. SEE SPECIFICATIONS FOR CULVERT PIPE MATERIAL DETAILS.
2. GRANULAR MATERIALS MUST BE COMPACTED TO 95% MAX DRY DENSITY AS DETERMINED BY ASTM D698.
3. EXISTING DITCH SLOPES TO BE MAINTAINED.
4. DITCHES TO BE RE-ESTABLISHED FOLLOWING CULVERT INSTALLATION.

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project  
**TERRA NOVA NATIONAL PARK UTILITY SYSTEMS RECAPITALIZATION PHASE 3**  
project

TERRA NOVA NATIONAL PARK

drawing  
dessin

**TYPICAL DETAILS**

designed A. MELANSON conçu

date 2021-02-26

drawn S. ALLAIN dessiné

date 2021-02-26

approved A. MELANSON approuvé

date 2021-02-26

Tender Soumission

PCA Project Manager Administrateur de projets APC

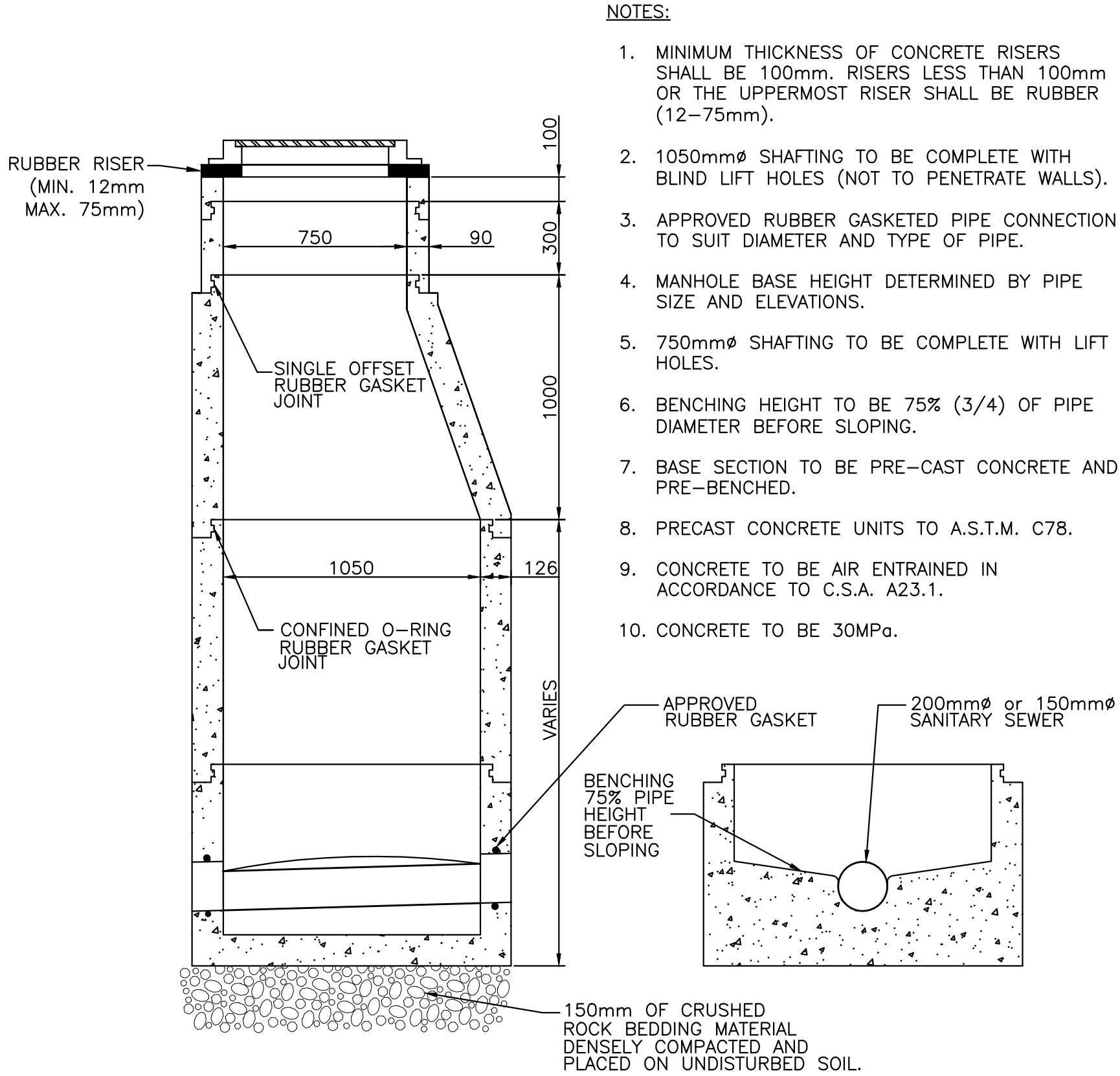
project number no. du projet

1716

drawing no. no. du dessin

D04

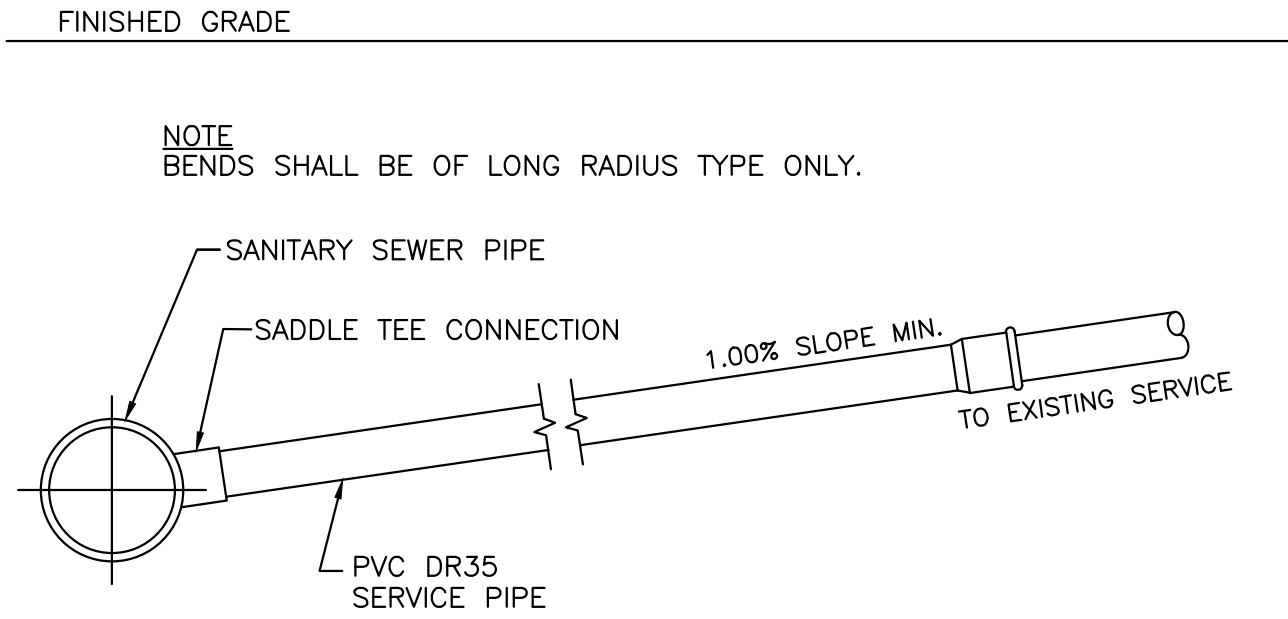




### DETAIL – 1050mmØ SANITARY MANHOLE INSTALLATION

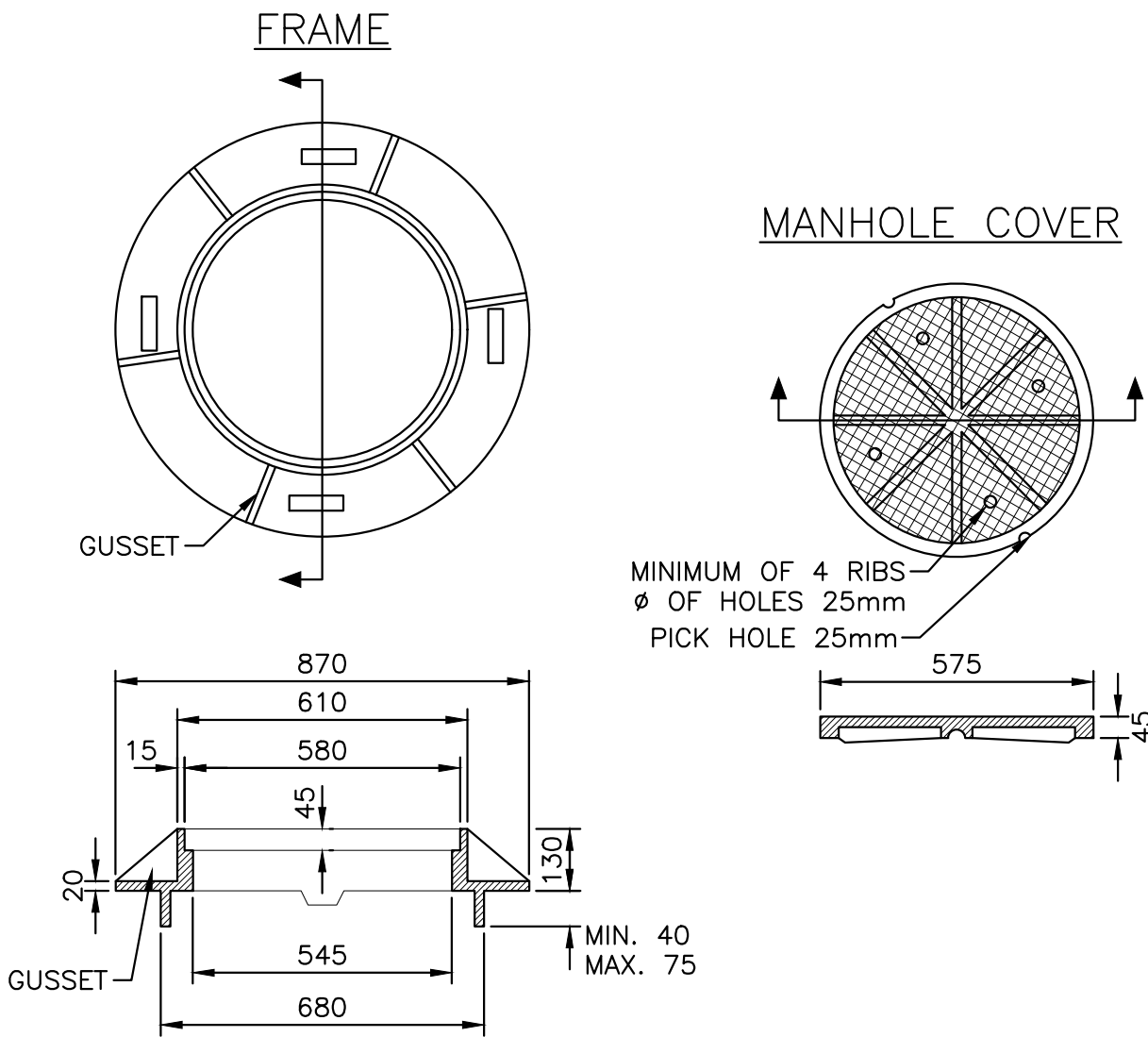
SCALE : 1:20

0mm 200 400 600 800 1000 1200 1400 1600 1800 2000mm



### DETAIL – SANITARY SEWER LATERAL

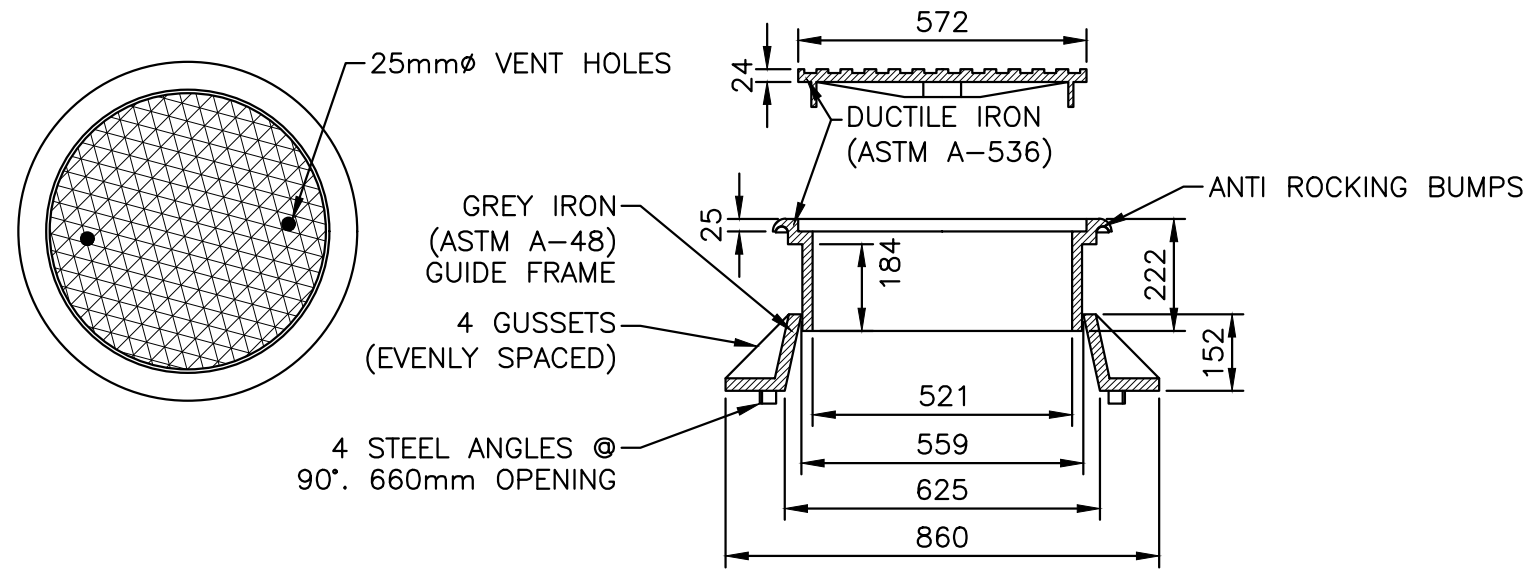
N.T.S.



- NOTES:
1. ALL CASTINGS MUST HAVE A PERMANENT MARKING, IDENTIFYING THE MANUFACTURER AND MAKE OR MODEL NUMBER OF THE CASTING.
  2. ALL FRAME AND COVERS ARE TO BE CAST IRON, TO ASTM A48, CLASS 30, FRAME TO BE A MIN. WEIGHT 95.3kg, MANHOLE COVER TO BE A MIN. WEIGHT 43.1kg, CATCH BASIN COVER TO BE A MIN. 52.2kg.
  3. ALL COVERS TO BE SNUG FIT, RATTLE FREE.

### DETAIL – MANHOLE FRAME AND COVER OFF ROAD

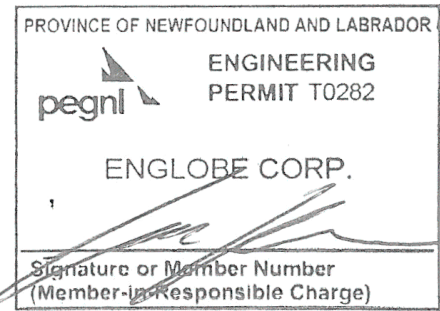
N.T.S.



- NOTES:
1. IMPORTANT: WHEN IN USE, THE AUTOSTABLE FRAME SHOULD NOT REST ON THE GUIDE FRAME. A MIN. 51mm SPACE SHOULD BE RESPECTED.
  2. ALL CASTINGS MUST HAVE PERMANENT MARKING IDENTIFYING THE MANUFACTURER AND MAKE OR MODEL NUMBER OF THE CASTING.
  3. ONE 51mm OR 102mm GUIDE FRAME RISER ALLOWED FOR HEIGHT ADJUSTMENT.
  4. MIN WEIGHTS: COVER–55kg, FRAME–98kg
  5. ADJUSTABLE FRAME AND COVER TO HAVE MACHINED SEATS.
  6. ASPHALT DENSITY UNDER THE FRAME IS OF UTMOST IMPORTANCE.
  7. TOP OF MANHOLE GUIDE FRAME TO BE SET LEVEL TO TOP OF CRUSHED ROCK SUBGRADE

### DETAIL – ADJUSTABLE FRAME AND COVER FOR PAVED ROADS ONLY

N.T.S.



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project	project	
TERRA NOVA NATIONAL PARK UTILITY SYSTEMS RECAPITALIZATION PHASE 3		
TERRA NOVA NATIONAL PARK		
drawing	dessin	
SANITARY SEWER TYPICAL DETAILS		
designed	A. ST-AMAND	conçu
date	2021-02-26	
drawn	A. ST-AMAND	dessiné
date	2021-02-26	
approved	A. MELANSON	approuvé
date	2021-02-26	
Tender	Soumission	
PCA Project Manager	Administrateur de projets APC	
project number	no. du projet	
1716		
drawing no.	no. du dessin	
DS01		



SIDE VIEW

TOP VIEW

TYPICAL 1524mmø DOSING CHAMBER

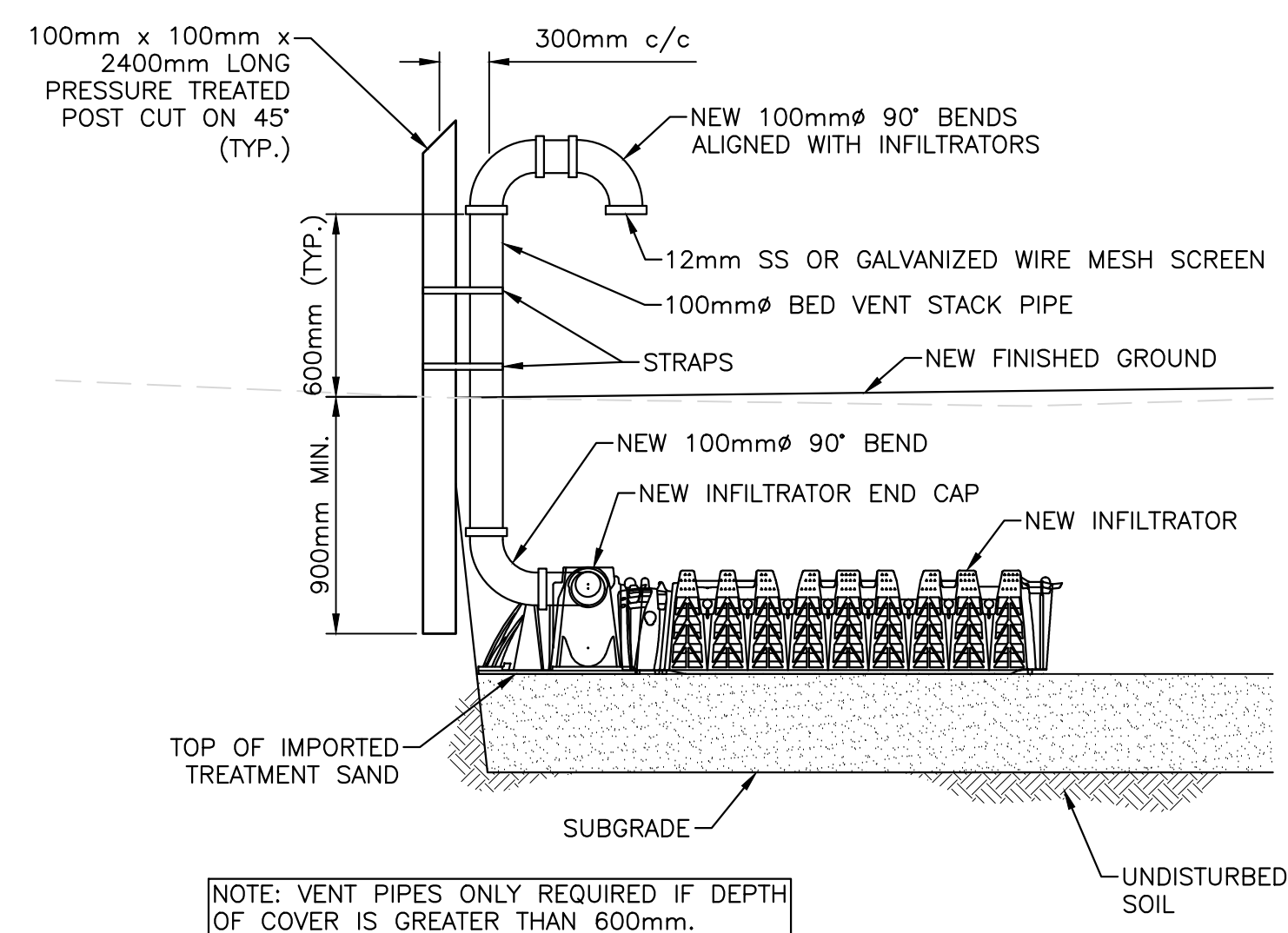
N.T.S.

FLOUT ARRANGEMENTS WITH 100mmØ OUTLET  
(TYPICAL)

NOTES:

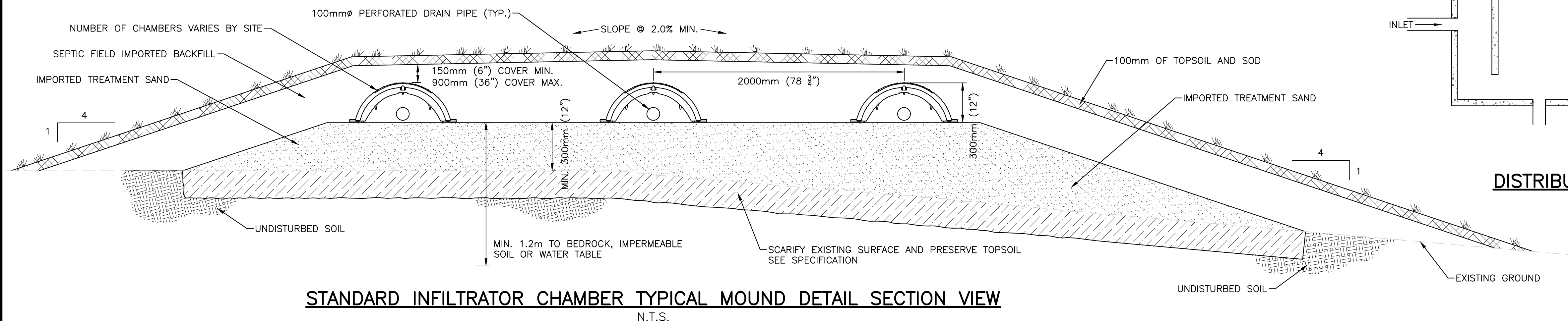
1. CHAMBER DIMENSIONS ARE REQUIRED MINIMUMS. ALL DIMENSIONS ORIGINATE FROM INSIDE OF CHAMBER. ALL DIMENSIONS ARE IN mm.
2. MINIMUM DRAWDOWN AVAILABLE FOR THESE ARRANGEMENTS: 279mm.
3. MAXIMUM DRAWDOWN AVAILABLE FOR THESE ARRANGEMENTS: 1270mm.
4. SHIM: FLOUT DEVICES SHALL NOT DROP LOWER THAN THE OUTLET. EXCESSIVE DROP WILL RESULT IN SLOW OR NO SHUTOFF OF FLOW. INSTALL A SHIM TO SUPPORT FLOUT IF FLOOR IS LOWER THAN OUTLETS. SHIMS MAY BE MADE OF MASONRY OR OTHER SUITABLE MATERIAL. PLASTIC SHIM ARRANGEMENTS ARE AVAILABLE. SHIMS SHALL SUPPORT THE FLOUT COMPLETELY AND BE NON-PERFORATED TO PROVIDE A WATER CUSHION.
5. INLETS: INLET FLOW SHALL NOT INTERFERE WITH THE FLOUT OR ENTER IT DIRECTLY. A VERTICAL PIPE TO THE LOWEST (OFF) LEVEL IS RECOMMENDED. DIVERT GRAVITY FLOW WITH A TEE TO ALLOW VENTING. DIVERT PUMPED FLOW WITH AN ELBOW. DRILL A ¼" HOLE INTO THE BACK OF THE ELBOW TO PREVENT BACK-SIPHONING. THE HOLE MUST BE ABOVE THE HIGHEST (ON) LEVEL.
6. ACCESS COVERS ARE REQUIRED. PLACEMENT OVER VENT/FLEX CONNECTOR AREA IS PREFERRED.
7. FLOW RATES AND CAPACITIES DEPEND ON SIZE OF TANK AND DRAWDOWN USED.

SITE	REQ'D DRAWDOWN (mm)
NEWMAN SOUND 38	279



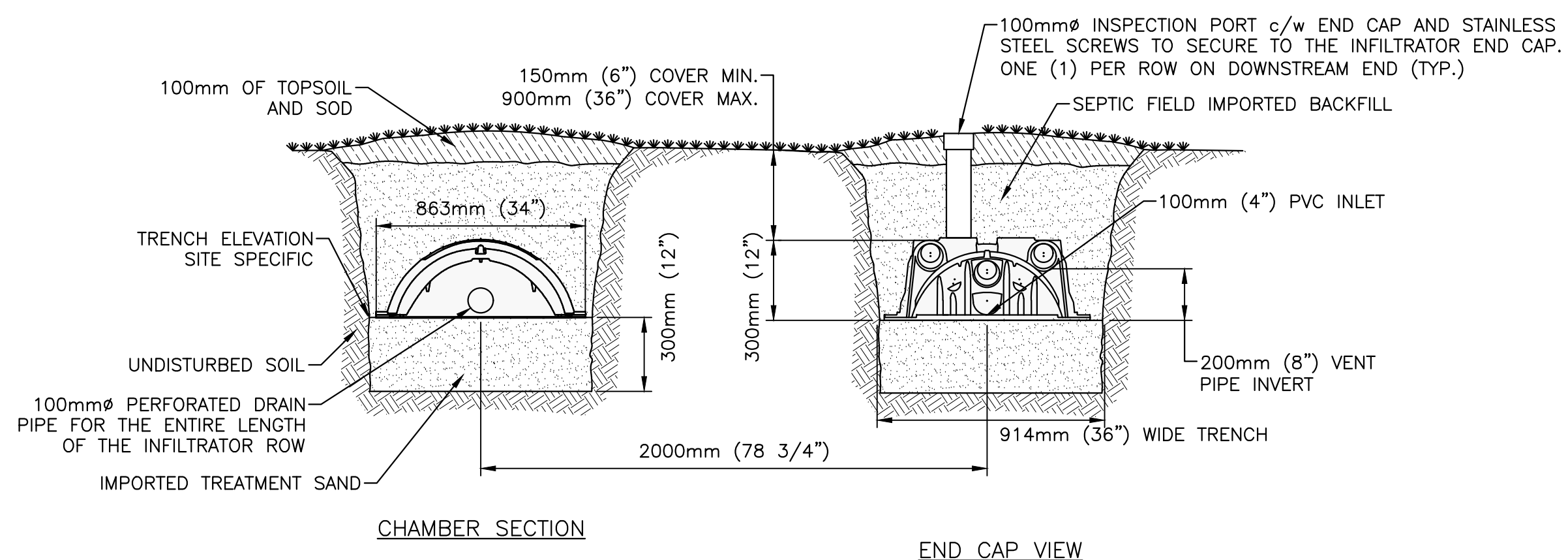
### BED END VENT DETAIL

N.T.S.



### STANDARD INFILTRATOR CHAMBER TYPICAL MOUND DETAIL SECTION VIEW

N.T.S.



### STANDARD INFILTRATOR CHAMBER TYPICAL TRENCH DETAIL SECTION VIEW

N.T.S.

TOP VIEW

SIDE VIEW

END CAP

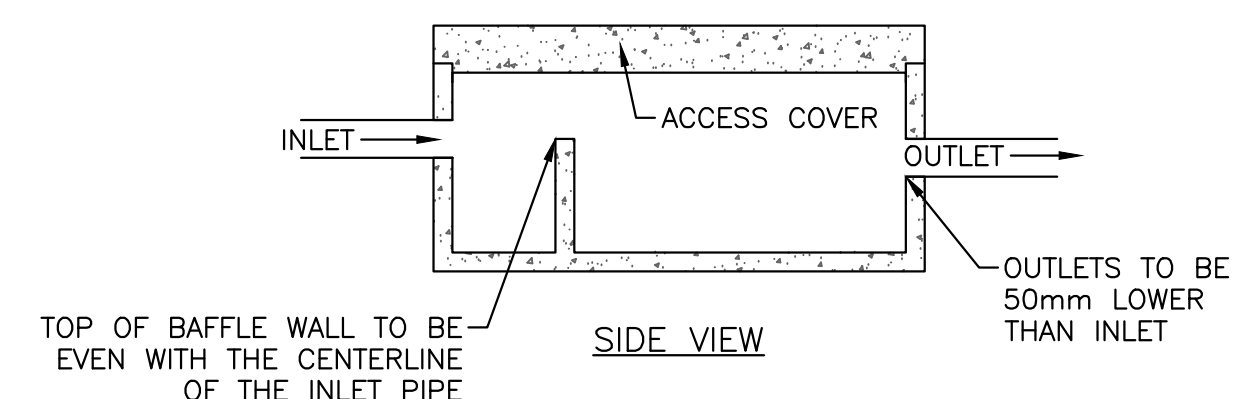
END VIEW

100mmØ F

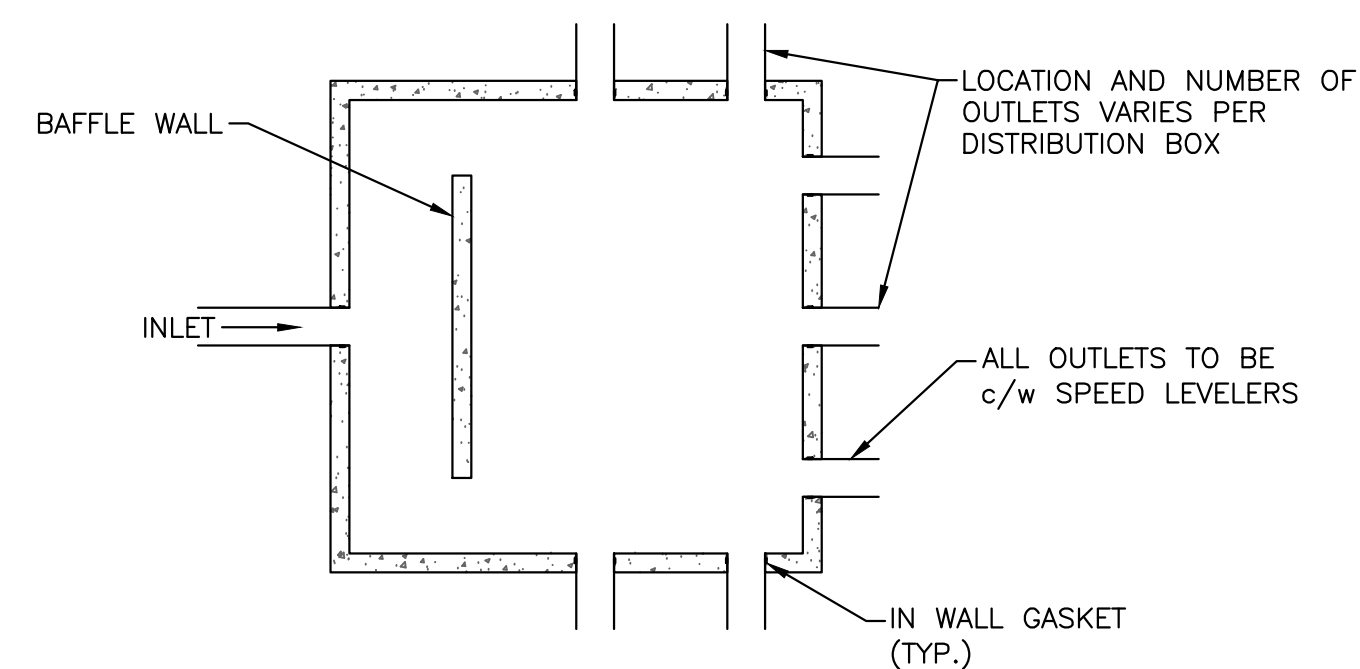
1. **Abstract**

## TYPICAL STANDARD INFILTRATOR CHAMBER

N.T.S.



SIDE VIEW



### DISTRIBUTION BOX TYPICAL

N.T.S.

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**TERRA NOVA  
NATIONAL PARK  
UTILITY SYSTEMS  
RECAPITALIZATION  
PHASE 3**

TERRA NOVA NATIONAL PARK

drawing	dessin
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## SANITARY SEWER TYPICAL DETAILS

designed	A. ST-AMAND	conçu
date	2021-02-26	
drawn	A. ST-AMAND	dessiné
date	2021-02-26	
approved	A. MELANSON	approuvé
date	2021-02-26	

PCA Project Manager	Administrateur de projets APC
project number	no. du projet

1716

drawing no.	no. du dessin
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DS02

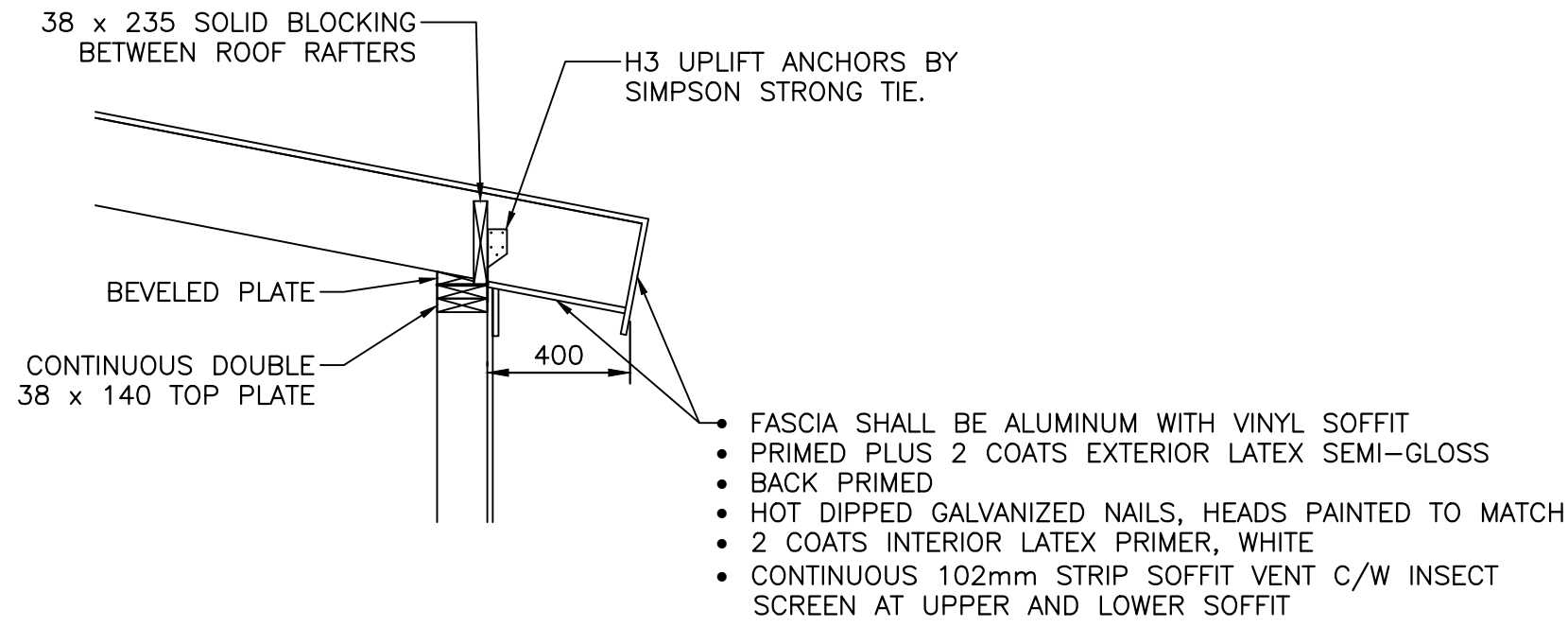


#### GENERAL NOTES

1. THE DRAWINGS DO NOT INDICATE ELEMENTS THAT MAY BE NECESSARY FOR CONSTRUCTION SAFETY. THE CONTRACTOR IS RESPONSIBLE FOR ALL SAFETY MEASURES PERTAINING TO THE PROJECT.
2. STRUCTURE TO BE DESIGNED FOR LOADS IN ACCORDANCE WITH THE NATIONAL BUILDING CODE OF CANADA, LATEST EDITION.
3. CONSTRUCTION SHALL CONFORM TO NBCC, LATEST EDITION AND THE LATEST EDITIONS OF APPLICABLE CSA AND SAFETY STANDARDS.
4. CONTRACTOR IS RESPONSIBLE FOR ALL TEMPORARY BRACING OF WALLS DURING CONSTRUCTION.
5. FOUNDATIONS ARE DESIGNED FOR AN ALLOWABLE BEARING CAPACITY OF 150 kPa, WHICH MUST BE VERIFIED IN WRITING BY A REGISTERED PROFESSIONAL GEOTECHNICAL ENGINEER PRIOR TO PLACEMENT OF FOOTING

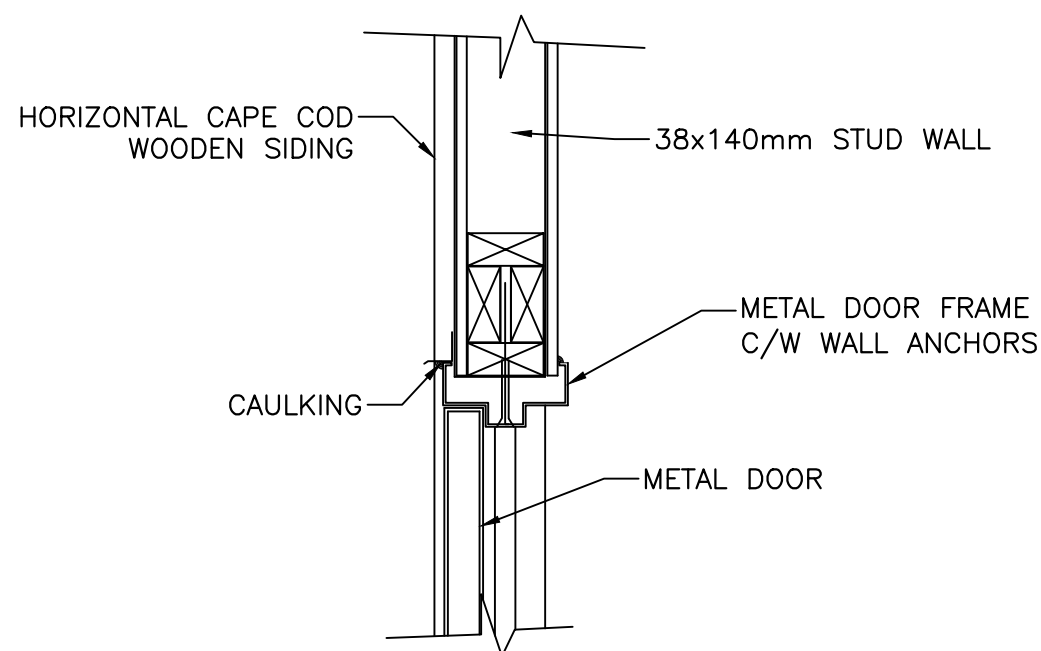
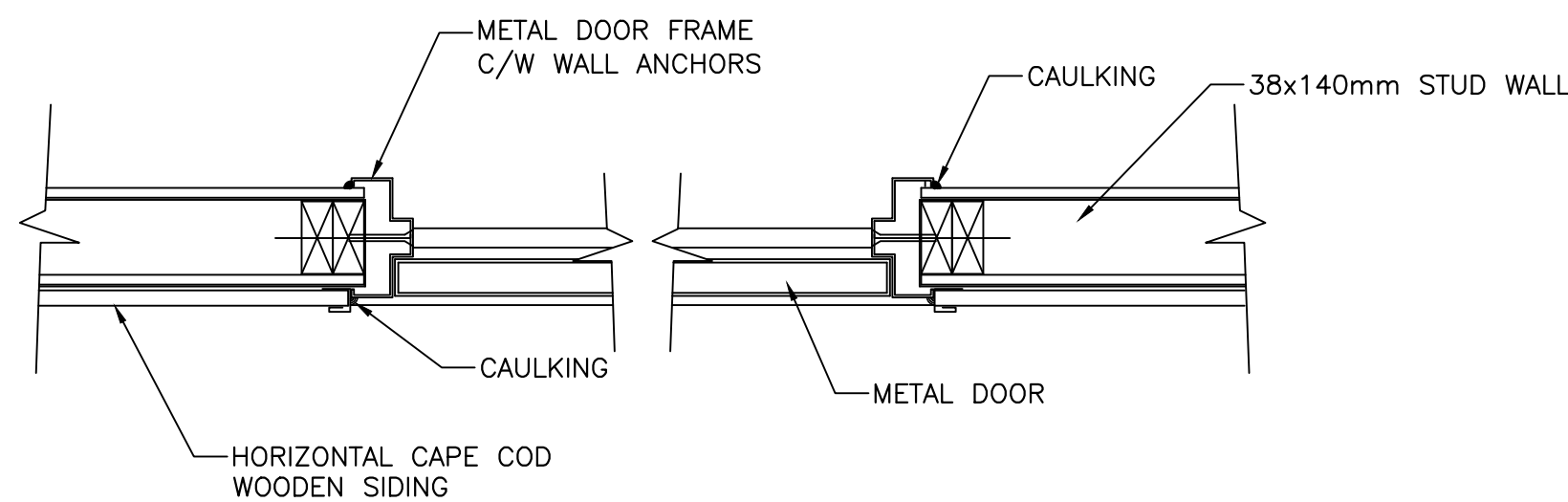
#### WOOD NOTES:

1. ALL WOOD CONSTRUCTION TO CONFORM TO CAN-086-M14.
2. NAILING REQUIREMENTS FOR ROOF SHEATHING (T&G) AND EXTERIOR WALLS SHALL BE MINIMUM 65mm COMMON NAILS @ 300mm O/C AT ALL INTERMEDIATE SUPPORTS AND 150mm C/C AT PANEL EDGE UNLESS NOTED ON THE STRUCTURAL DRAWINGS.
3. DIMENSION LUMBER TO BE SPF NO. 1/2 OR BETTER, AND KILN DRIED FOR ALL BEARING WALLS, LINTELS, JOISTS, AND BUILT UP POSTS.
4. ALL STUD BEARING WALLS TO BE FULLY BLOCKED AT MID-HEIGHT UNLESS NOTED OTHERWISE ON THE STRUCTURAL DRAWINGS. PROVIDE BRACING PRIOR TO PLACEMENT OF PLYWOOD.
5. NOTCHING OF FRAMING MEMBERS WILL NOT BE ALLOWED.
6. WALL STUDS SHALL NOT BE NOTCHED. MAXIMUM DRILLED HOLE AT CENTRE OF STUD NOT TO EXCEED 25mm.
7. TOP PLATES IN WALLS SHALL NOT BE NOTCHED, DRILLED OR OTHERWISE WEAKENED TO REDUCE THE UNDAMAGED WIDTH TO LESS THAN 50mm UNLESS THE WEAKENED PLATES ARE SUITABLE REINFORCED BY PROVIDING ADDITIONAL STUD E.S. OF OPENING.
8. ALL PLYWOOD TO CONFORM TO CSA 0151 "CANADIAN SOFTWOOD PLYWOOD" ALL OSB TO CONFORM TO CSA 0452.0 DESIGN RATED OSB.



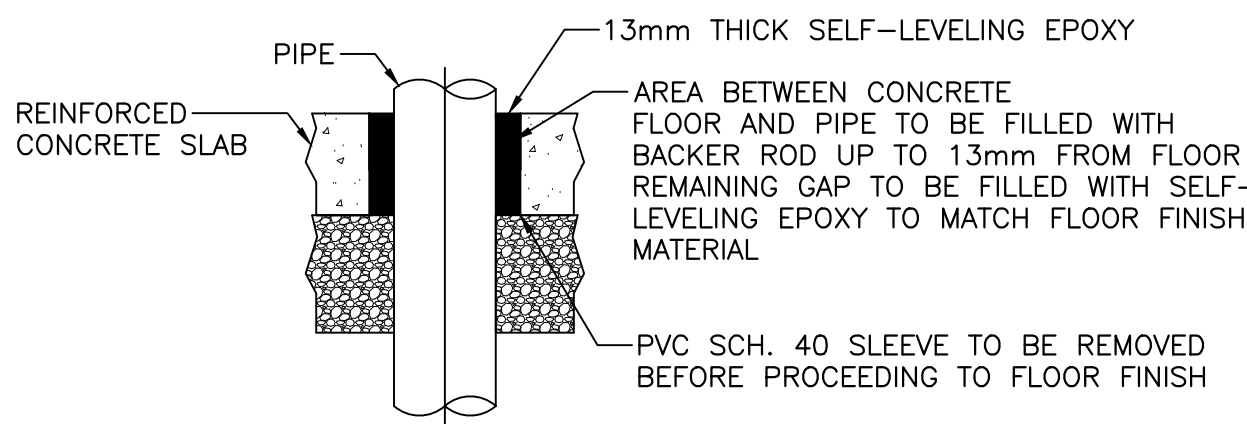
ROOF SECTION  
SCALE : 1:20

0mm 500mm 1000mm 1500mm 2000mm 2500mm



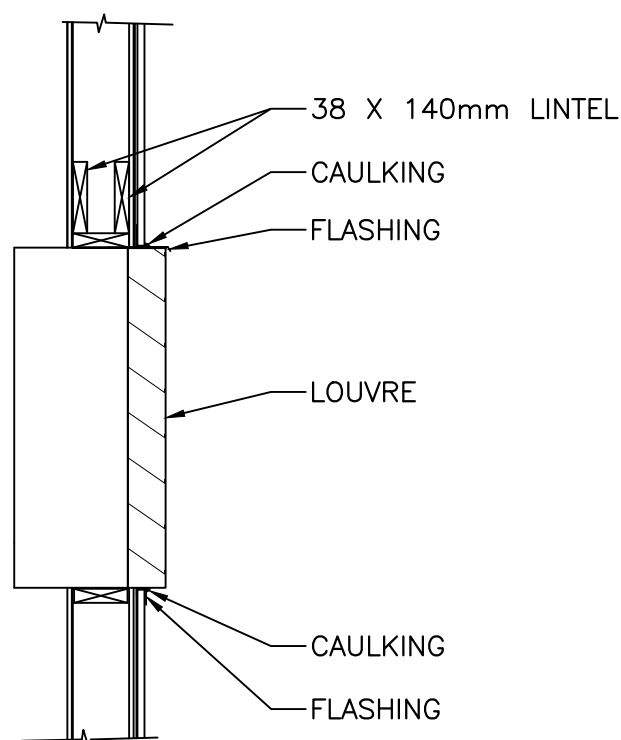
MAN DOOR DETAILS  
SCALE : 1:20

0mm 500mm 1000mm 1500mm 2000mm 2500mm



PIPE PENETRATION DETAIL  
SCALE : 1:20

0mm 500mm 1000mm 1500mm 2000mm 2500mm

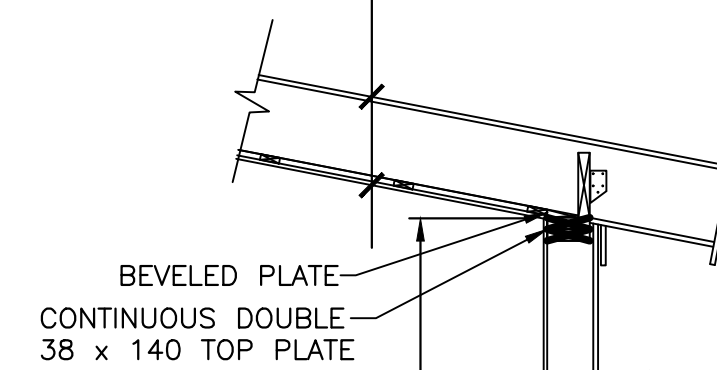


LOUVRE INSTALLATION DETAIL  
SCALE : 1:20

0mm 500mm 1000mm 1500mm 2000mm 2500mm

#### ROOF DATA

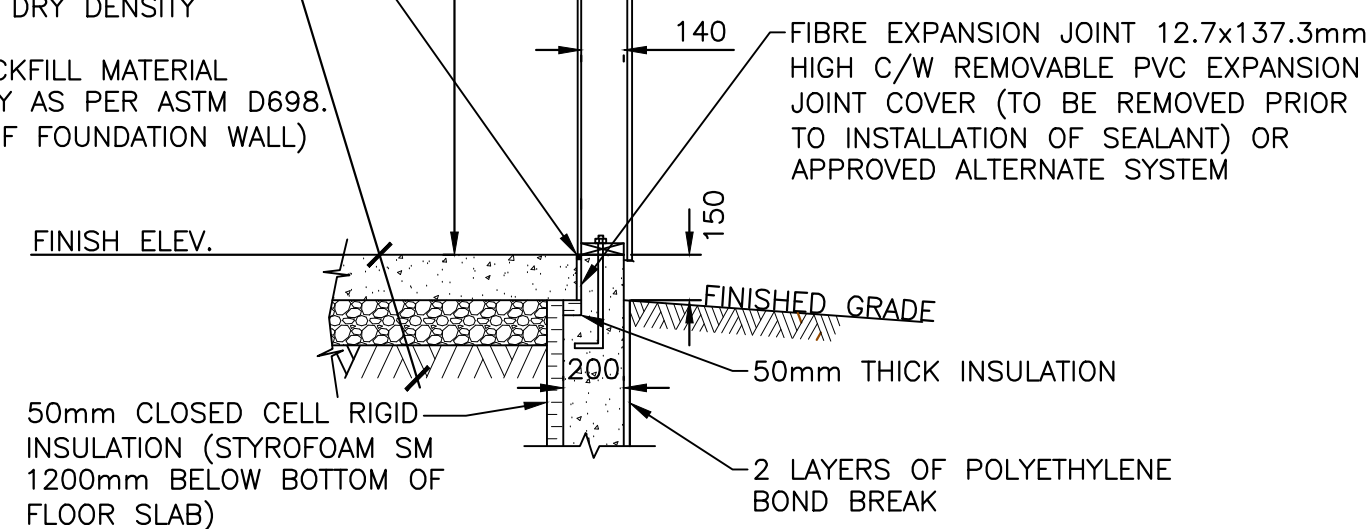
- ASPHALT SHINGLES C/W DRIP EDGE AND FLASHING
- ICE AND WATER SHIELD, 914mm WIDE
- FELT PAPER (EXCEPT WHERE ICE SHIELD IS USED, MIN. 100mm OVERLAP REQUIRED)
- 16mm T & G PLYWOOD
- 38 X 240 RAFTERS @ 400mm O.C.
- 19x64mm STRAPPING @ 406mm O.C.
- 6 mil VAPOR BARRIER (JOINTS TAPED)
- 16mm PLYWOOD PAINTED



#### EXTERIOR WALL DATA

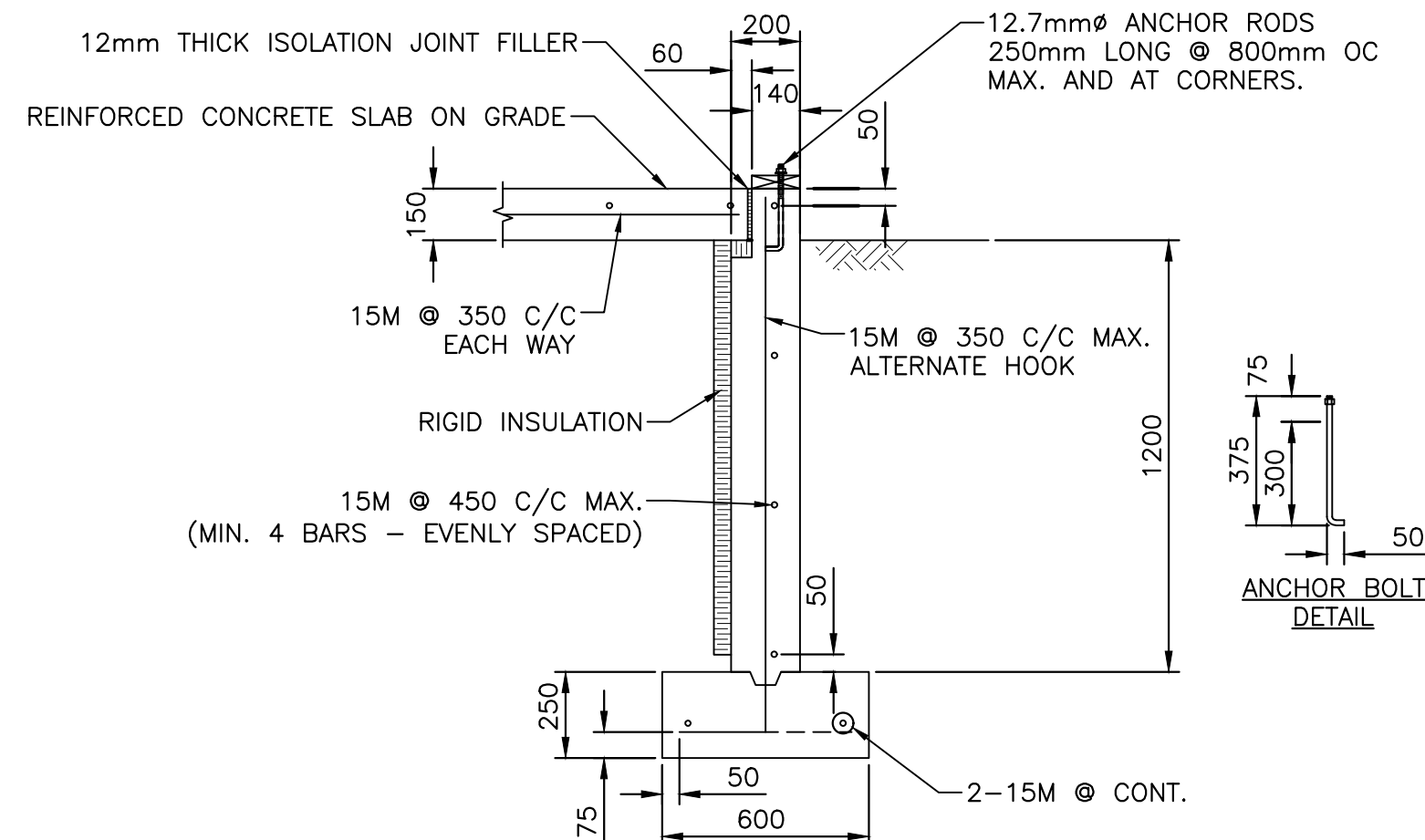
- HORIZONTAL CAPE COD WOODEN SIDING
- AIR BARRIER (JOINTS TAPED)
- 16mm PLYWOOD
- TWO (2) ROWS OF 38x140mm BRACING
- 38x140mm STUDS @ 406mm O.C.
- 6 mil VAPOR BARRIER (JOINTS SEALED)
- 16mm PLYWOOD PAINTED

- FLOOR DATA
- 150mm REINFORCED CONC. SLAB
  - 10 mil UNDERSLAB POLY
  - MIN. 150mm 0-19 CRUSHED ROCK COMPACTED TO 95% MAX. DRY DENSITY AS PER ASTM D698.
  - COMPACTED SELECTED BACKFILL MATERIAL TO 95% MAX. DRY DENSITY AS PER ASTM D698. (INCLUDING BOTH SIDES OF FOUNDATION WALL)



TYPICAL WALL SECTION  
SCALE : 1:25

0mm 500mm 1000mm 1500mm 2000mm 2500mm



FOUNDATION SECTION  
SCALE : 1:20

0mm 500mm 1000mm 1500mm 2000mm 2500mm

0.0	ISSUED FOR TENDER	05/31 2021
revisions		date

project	TERRA NOVA NATIONAL PARK UTILITY SYSTEMS RECAPITALIZATION PHASE 3	projet
drawing	BLOWER BUILDING DETAILS	dessin

TERRA NOVA NATIONAL PARK

designed J. CLACK conçu

date 2021-02-26

drawn J. CLACK dessiné

date 2021-02-26

approved A. MELANSON approuvé

date 2021-02-26

Tender Soumission

PCA Project Manager Administrateur de projets APC

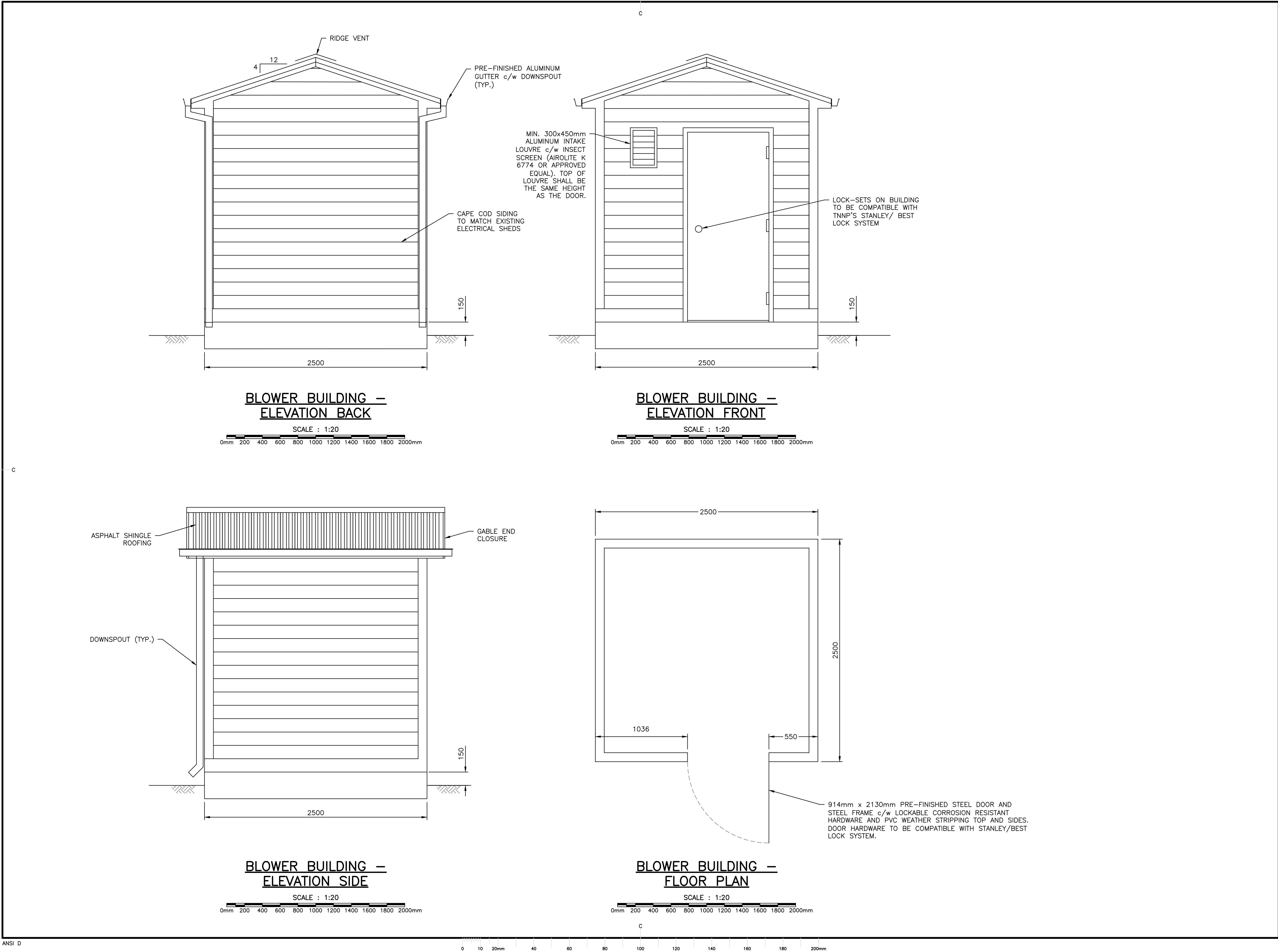
project number no. du projet


1716

drawing no. no. du dessin


DS03








Parks Canada




Parcs Canada



NOTES:


1. LAYOUT OF BLOWERS INSIDE THE BUILDING AND PIPE PENETRATIONS LOCATIONS SHALL BE DETERMINED BASED ON MANUFACTURER'S RECOMMENDATIONS.

PROVINCE OF NEWFOUNDLAND AND LABRADOR

ENGINEERING PERMIT T0282

ENGLOBE CORP.

Signature or Member Number (Member-Responsable Charge)

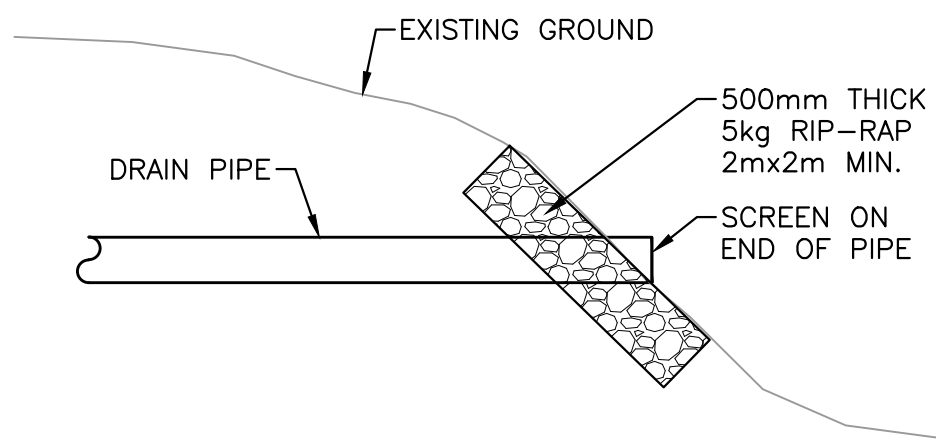


0.0	ISSUED FOR TENDER	05/31 2021
revisions		date
project	TERRA NOVA NATIONAL PARK UTILITY SYSTEMS RECAPITALIZATION PHASE 3	
TERRA NOVA NATIONAL PARK		
drawing	dessin	
BLOWER BUILDING DETAILS		
designed	J. CLACK	conçu
date	2021-02-26	
drawn	A. ST-AMAND	dessiné
date	2021-02-26	
approved	A. MELANSON	approuvé
date	2021-02-26	
Tender	Soumission	
PCA Project Manager	Administrateur de projets APC	
project number	no. du projet	
1716		
drawing no.	no. du dessin	
DS04		

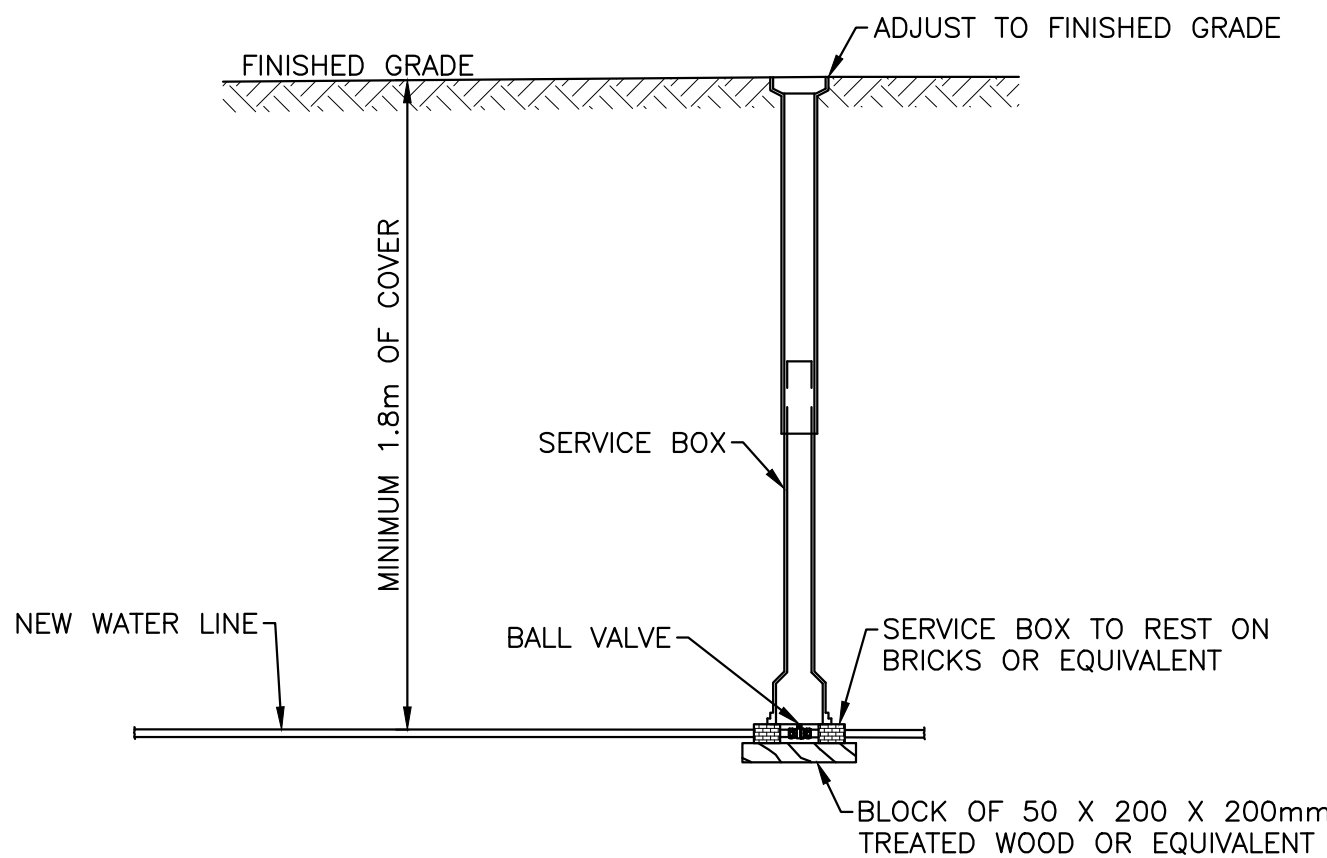




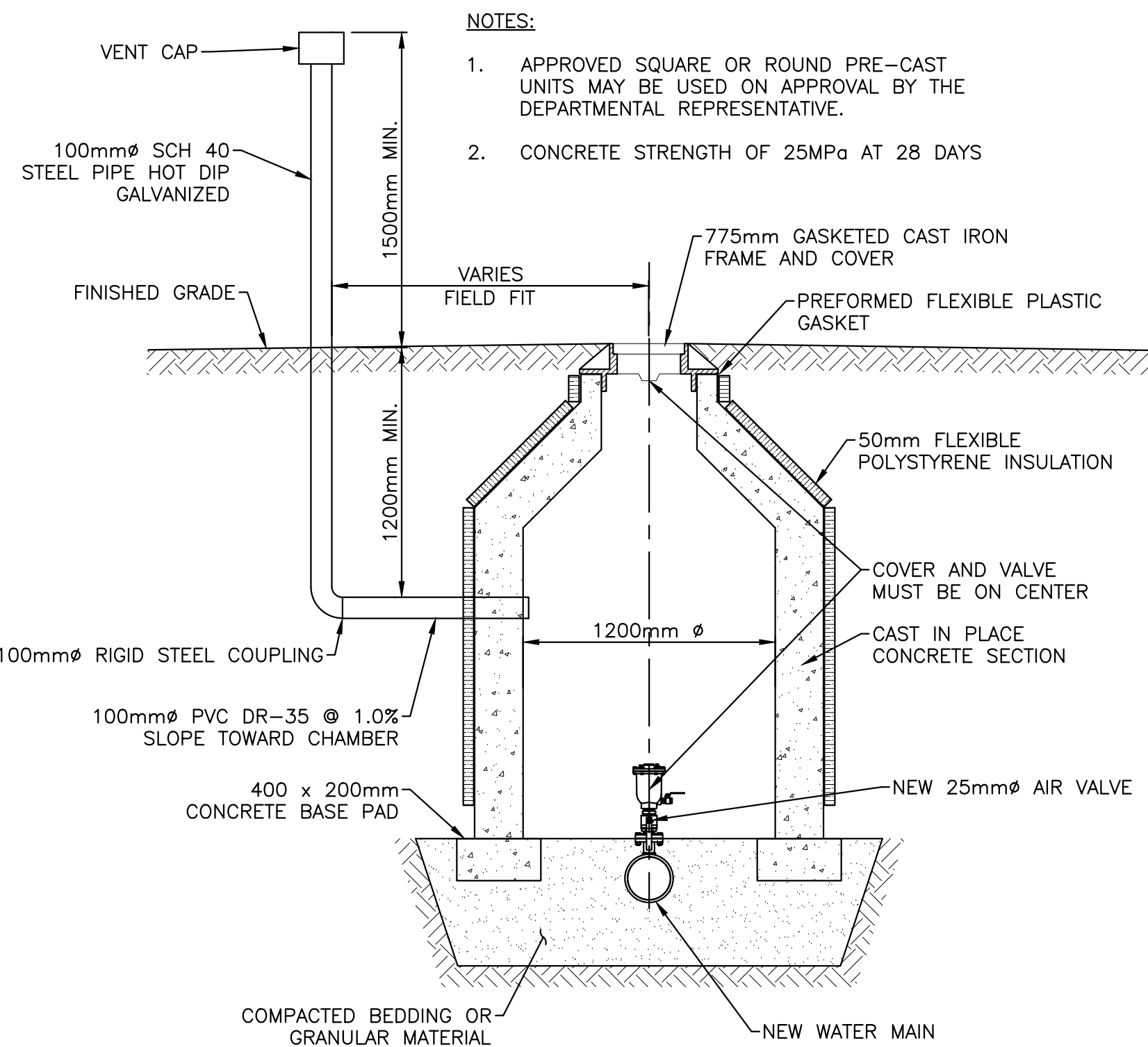




**LOW POINT DRAIN DETAIL**  
N.T.S.



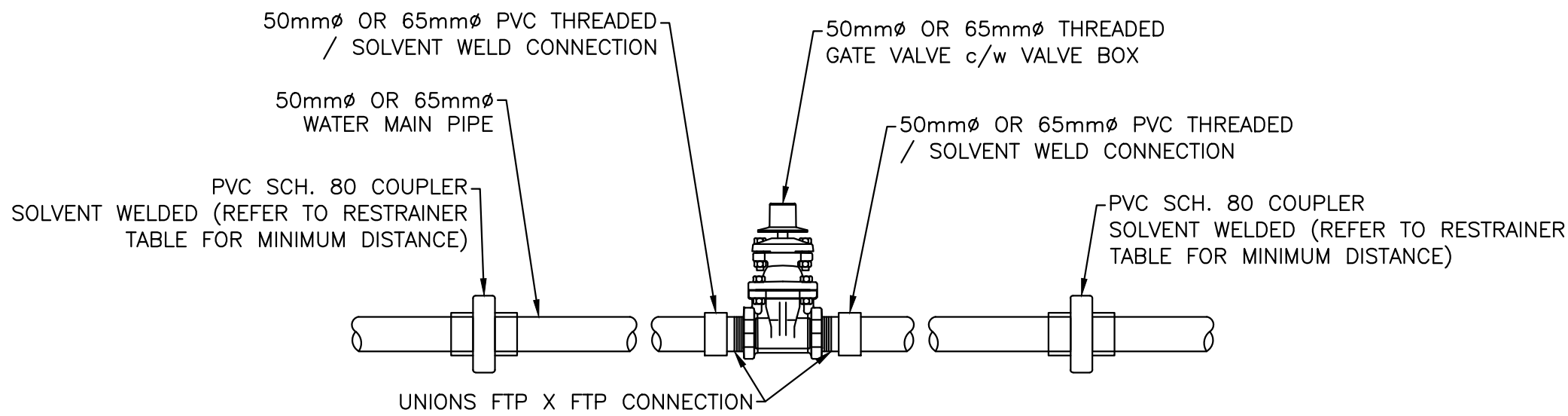
**TYPICAL VALVE BOX DETAIL**  
SCALE: N.T.S.



**TYPICAL AIR VALVE CHAMBER DETAIL**  
N.T.S.

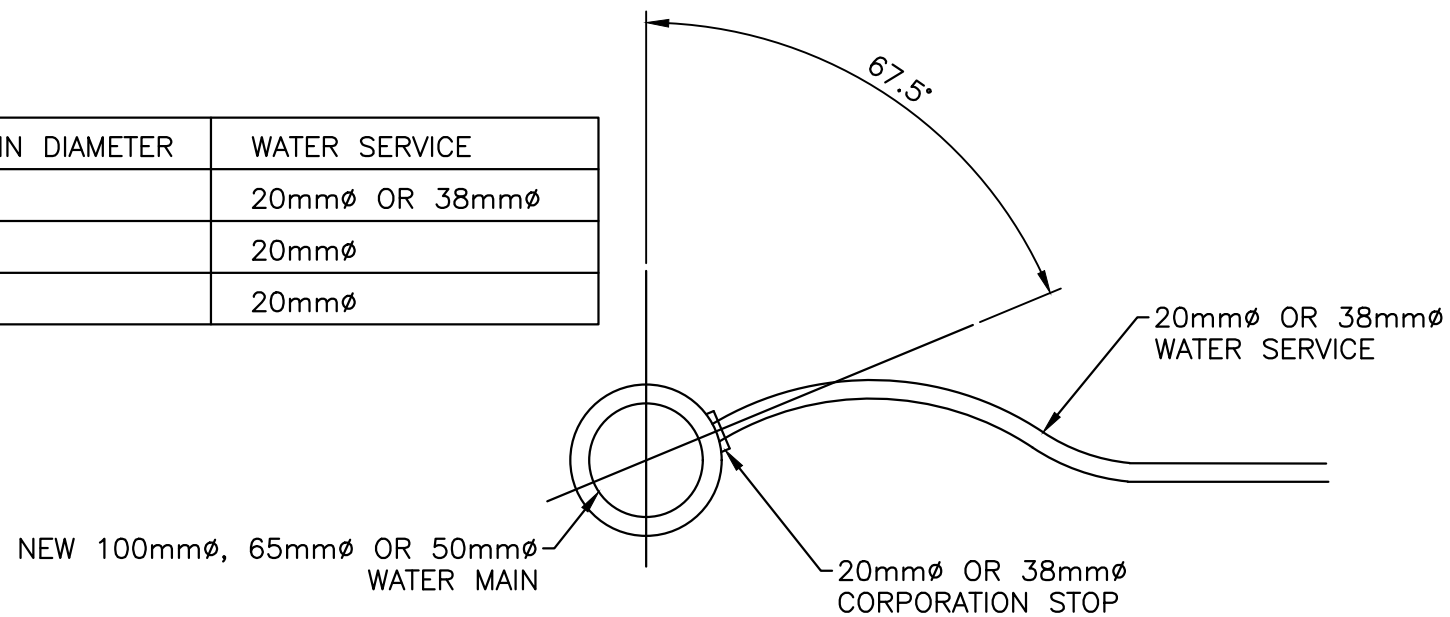
FITTING	JOINT RESTRAINT REQUIREMENTS
TEES	ALL SIDES OF ALL TEES TO BE MECHANICALLY RESTRAINED
JOINTS	ALL JOINTS WITHIN 3.0m OF TEE CENTERLINE TO BE RESTRAINED
HYDRANTS	ALL JOINTS INCLUDING AT VALVE TO BE RESTRAINED
VALVES	ALL JOINTS AND VALVES WITHIN 2.5m OF DEAD ENDS TO BE RESTRAINED
BENDS	ALL JOINTS WITHIN 6.0m OF ALL BENDS TO BE RESTRAINED
REDUCERS	ALL JOINTS WITHIN 6.0m OF REDUCERS TO BE RESTRAINED

**MECHANICAL JOINT RESTRAINT REQUIREMENTS**

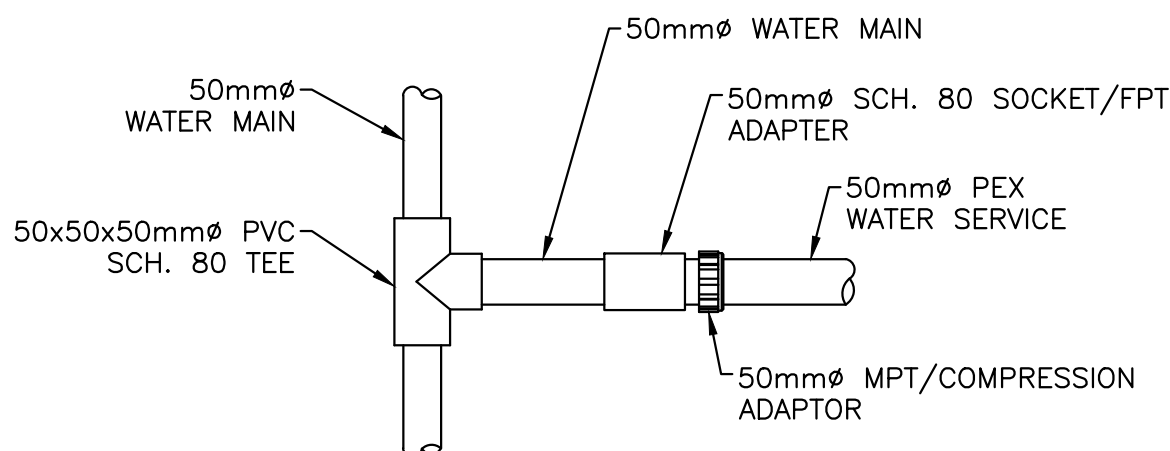
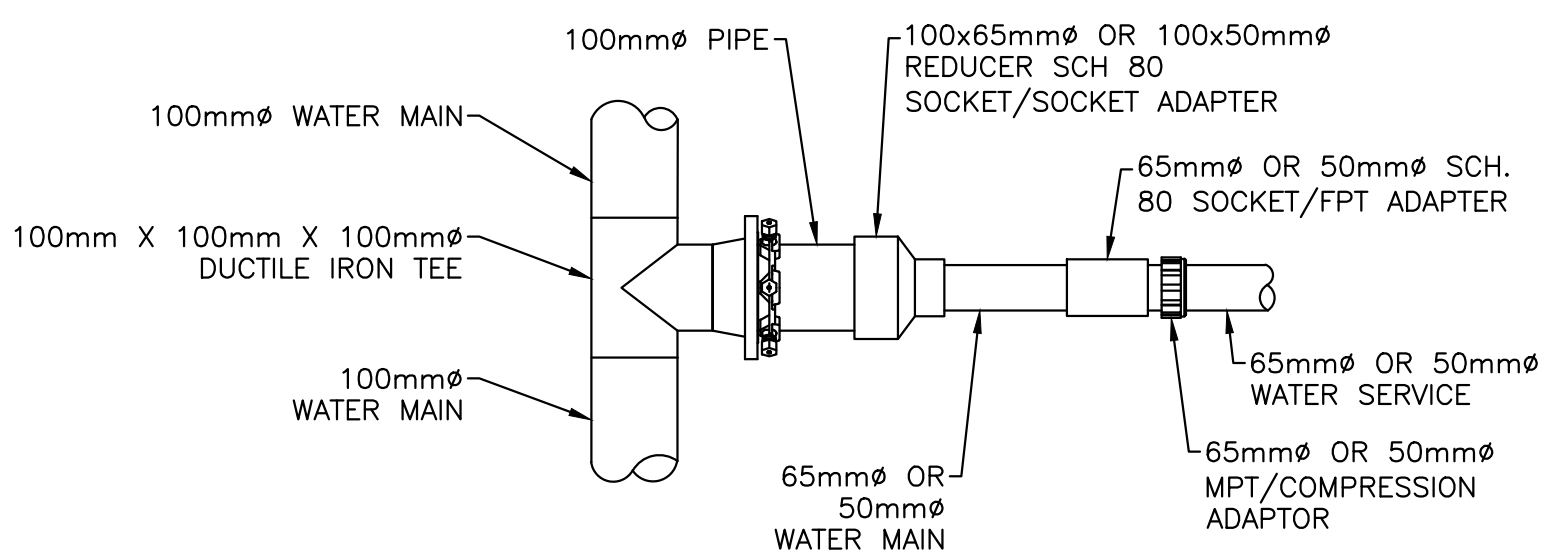
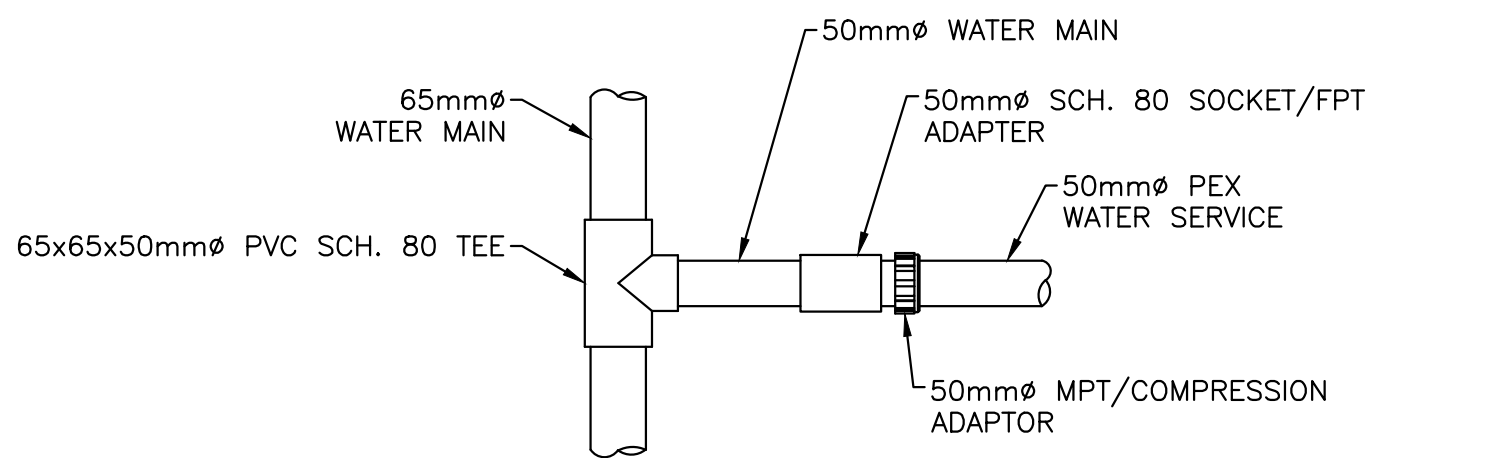


**DETAIL-65mmØ OR 50mmØ VALVE CONNECTION**  
N.T.S.

WATER MAIN DIAMETER	WATER SERVICE
100mmØ	20mmØ OR 38mmØ
65mmØ	20mmØ
50mmØ	20mmØ



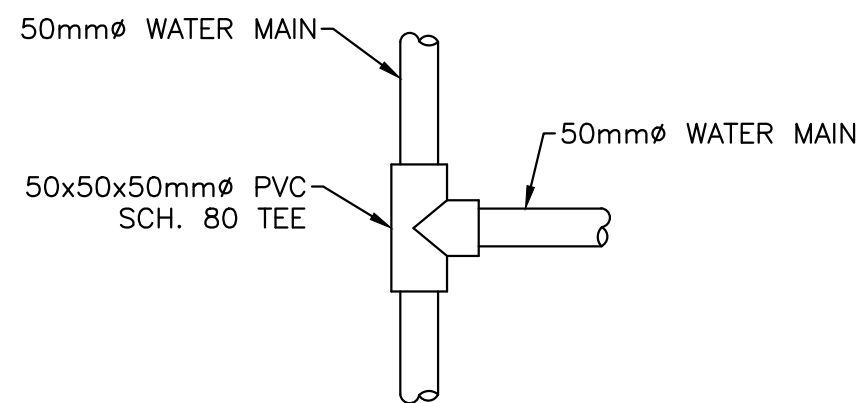
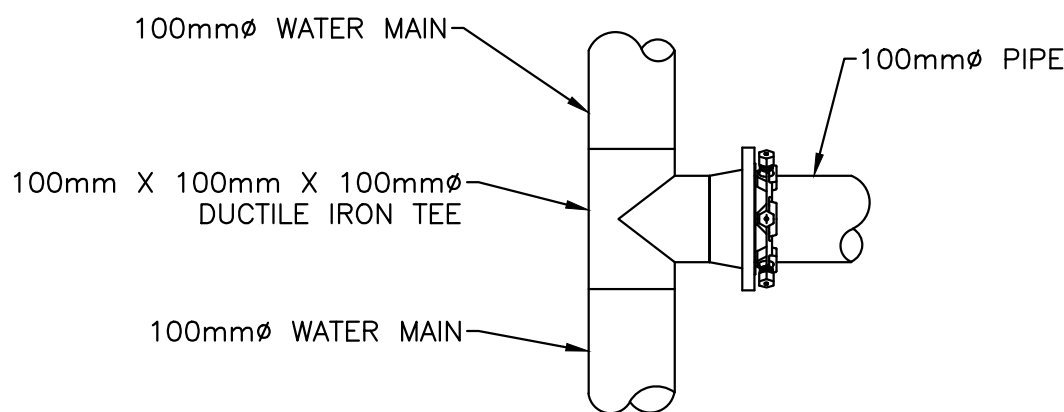
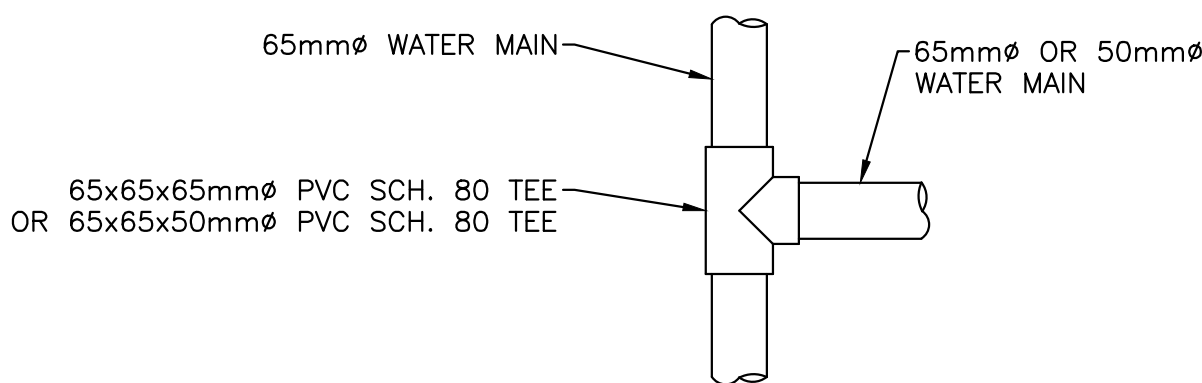
**DETAIL-WATER SERVICE WITH SADDLE**  
N.T.S.



WATER MAIN DIAMETER	WATER SERVICE
100mmØ	50mmØ
65mmØ	50mmØ OR 38mmØ
50mmØ	50mmØ OR 38mmØ

IF WATER SERVICE IS 38mmØ,  
THE SPECIFIC ADAPTOR SHALL BE  
INSTALLED.

**DETAIL-WATER SERVICE CONNECTION TO TEE**  
N.T.S.



**DETAIL-WATER MAIN WITH TEE**  
N.T.S.

0.0	ISSUED FOR TENDER	05/31 2021
revisions		date

project	TERRA NOVA NATIONAL PARK UTILITY SYSTEMS RECAPITALIZATION PHASE 3	projet
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drawing	dessin
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**WATER MAIN TYPICAL DETAILS**

designed	S. SAVOIE	conçu
date	2021-02-26	
drawn	S. LEBLANC	dessiné
date	2021-02-26	
approved	A. MELANSON	approuvé
date	2021-02-26	
Tender		Soumission

PCA Project Manager	Administrateur de projets APC
---------------------	-------------------------------

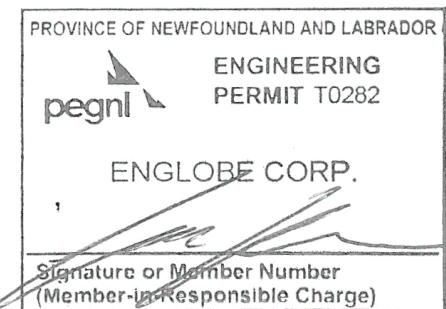
project number	no. du projet
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1716

drawing no.	no. du dessin
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DW02





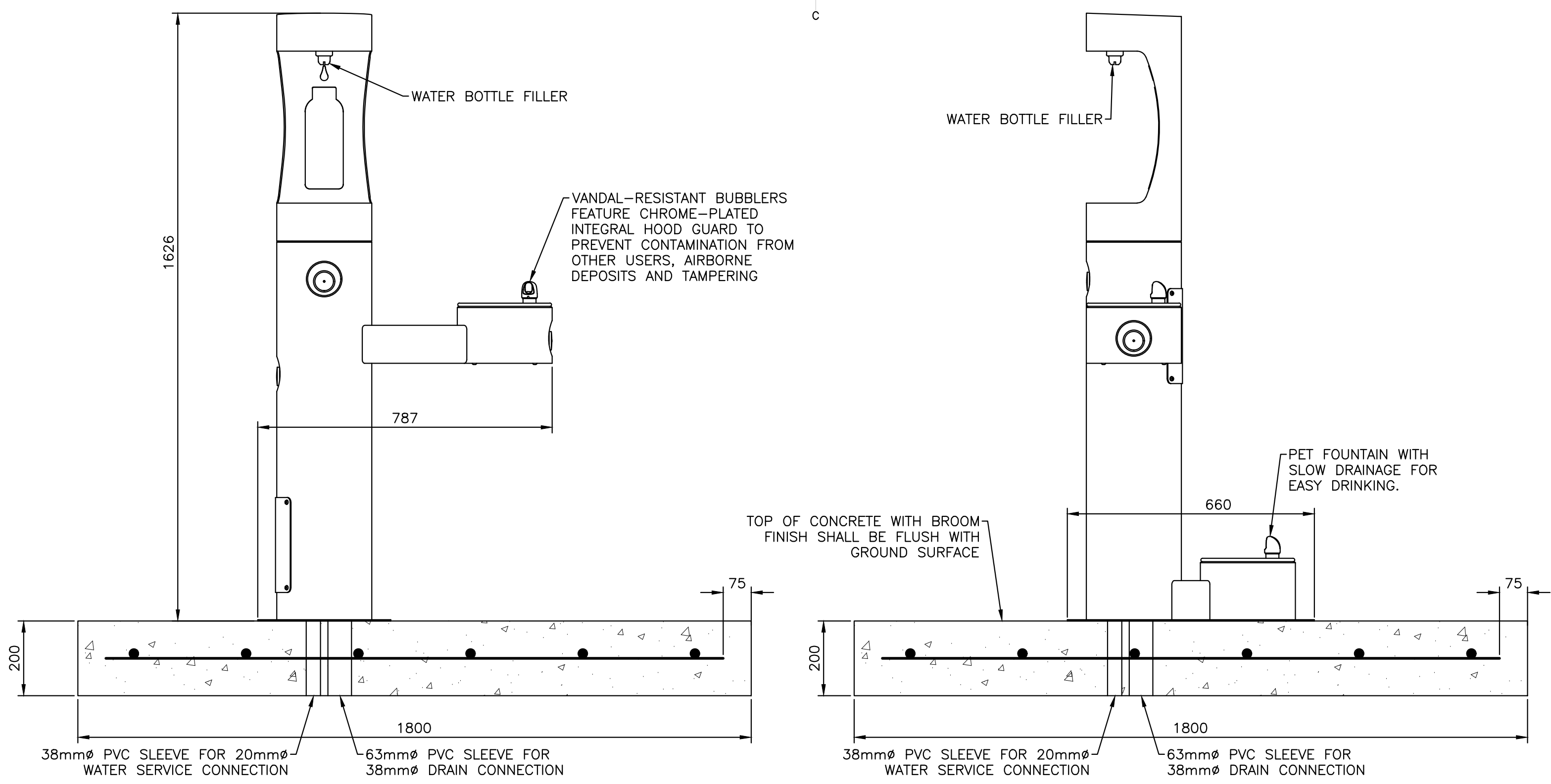
0.0	ISSUED FOR TENDER	05/31/2021
revisions		date

project TERRA NOVA NATIONAL PARK UTILITY SYSTEMS RECAPITALIZATION PHASE 3  
project

drawing WATER MAIN TYPICAL DETAILS  
dessin

designed	A. MELANSON	conçu
date	2021-02-26	
drawn	S. ALLAIN	dessiné
date	2021-02-26	
approved	A. MELANSON	approuvé
date	2021-02-26	
Tender		Soumission

PCA Project Manager	Administrateur de projets APC
project number	no. du projet
1716	
drawing no.	no. du dessin
DW03	

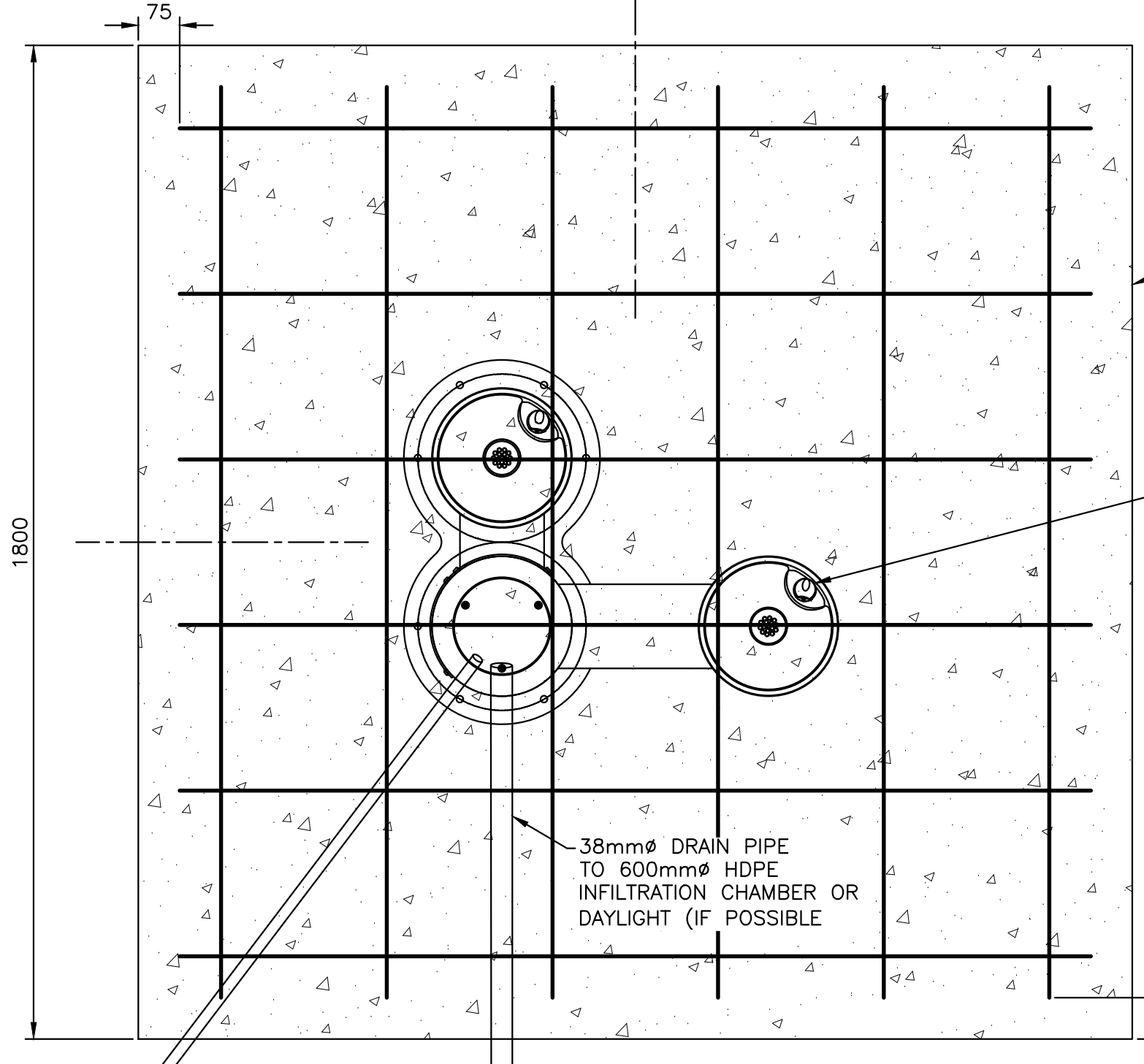


FRONT VIEW

SIDE VIEW

NOTES:

- 600mm $\varnothing$  HDPE INFILTRATION CHAMBER c/w STANDARD FRAME AND COVER (SIZED TO FIT 600mm $\varnothing$  PIPE), WITH 600mm OF 5-19mm CRUSHED ROCK (CLEAR STONE) AT THE BOTTOM OF THE CHAMBER, BELOW THE DRAIN PIPE.
- DRAIN PIPE TO HAVE A MIN. DEPTH OF 1800mm AND MIN. GRADE OF 2% TO INFILTRATION CHAMBER. INFILTRATION CHAMBER SHALL BE 600mm BELOW THE INVERT OF THE DRAIN PIPE. THE SPACE ABOVE THE PIPE SHALL BE LEFT VOID TO THE COVER AT THE GROUND SURFACE. LOCATION OF INFILTRATION CHAMBER SHALL BE CLEAR OF TRAFFIC AREAS AND SHALL BE CONFIRMED IN THE FIELD BY THE DEPARTMENTAL REPRESENTATIVE.



1.8mx1.8m REINFORCED CONCRETE PAD WITH 10M BARS AT 300mm C/C

VANDAL-RESISTANT BUBBLERS FEATURE CHROME-PLATED INTEGRAL HOOD GUARD TO PREVENT CONTAMINATION FROM OTHER USERS, AIRBORNE DEPOSITS AND TAMPERING

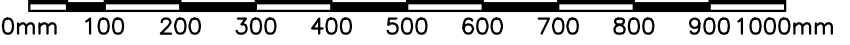
38mm $\varnothing$  DRAIN PIPE TO 600mm $\varnothing$  HDPE INFILTRATION CHAMBER OR DAYLIGHT (IF POSSIBLE)

NOTES:

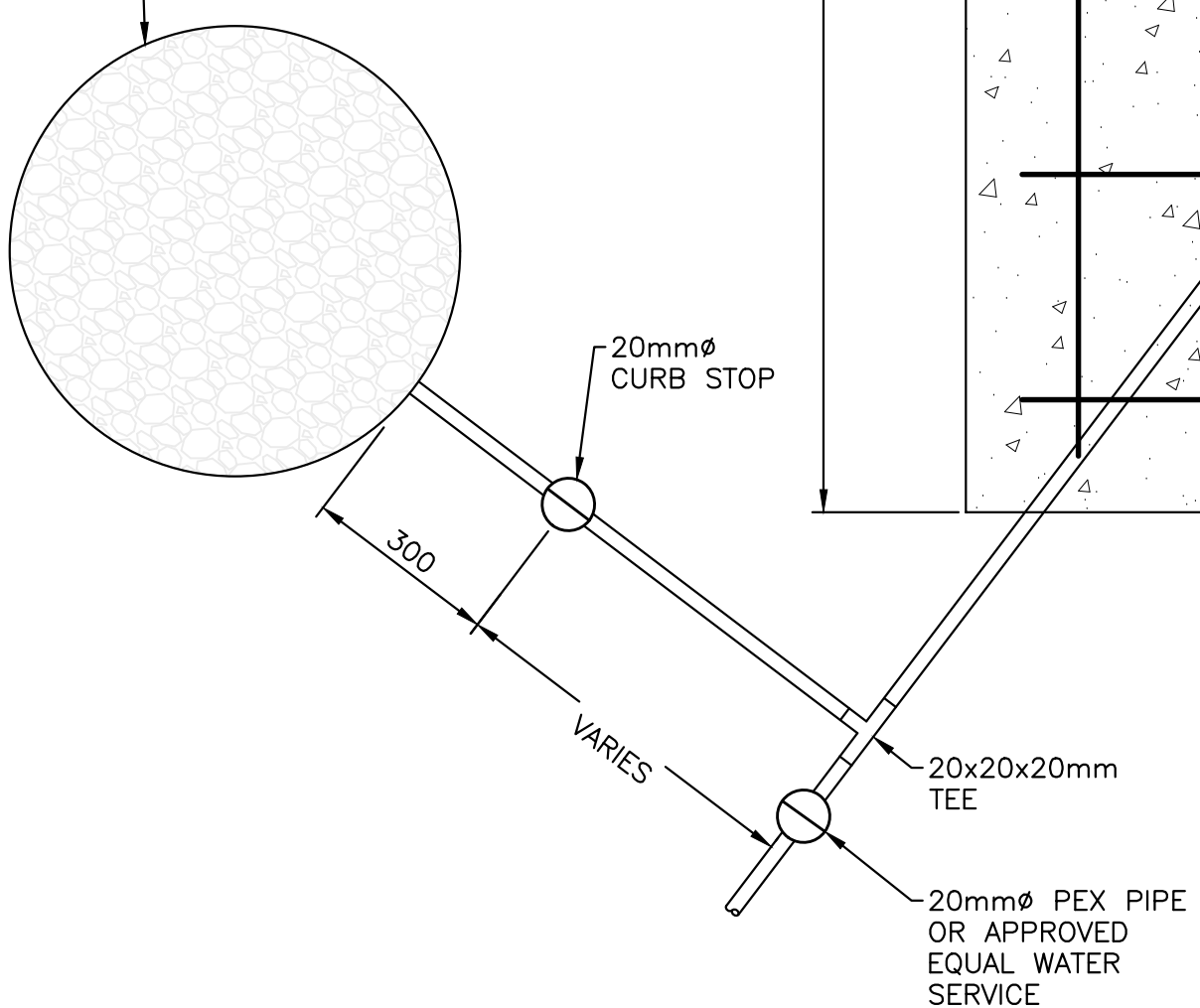
- 600mm $\varnothing$  HDPE INFILTRATION CHAMBER c/w FRAME AND COVER, WITH 150mm OF 5-19mm CRUSHED ROCK (CLEAR STONE).
- DRAIN PIPE TO HAVE A MIN. DEPTH OF 600mm AND MIN. GRADE OF 2% TO INFILTRATION CHAMBER OR DAYLIGHT. INFILTRATION CHAMBER (IF USED) SHALL BE 600mm BELOW THE INVERT OF THE DRAIN PIPE. SPACE ABOVE PIPE SHALL BE LEFT VOID TO THE COVER AT THE GROUND SURFACE.

DETAIL- BOTTLE FILLING STATION, BI-LEVEL, PEDESTAL WITH PET STATION

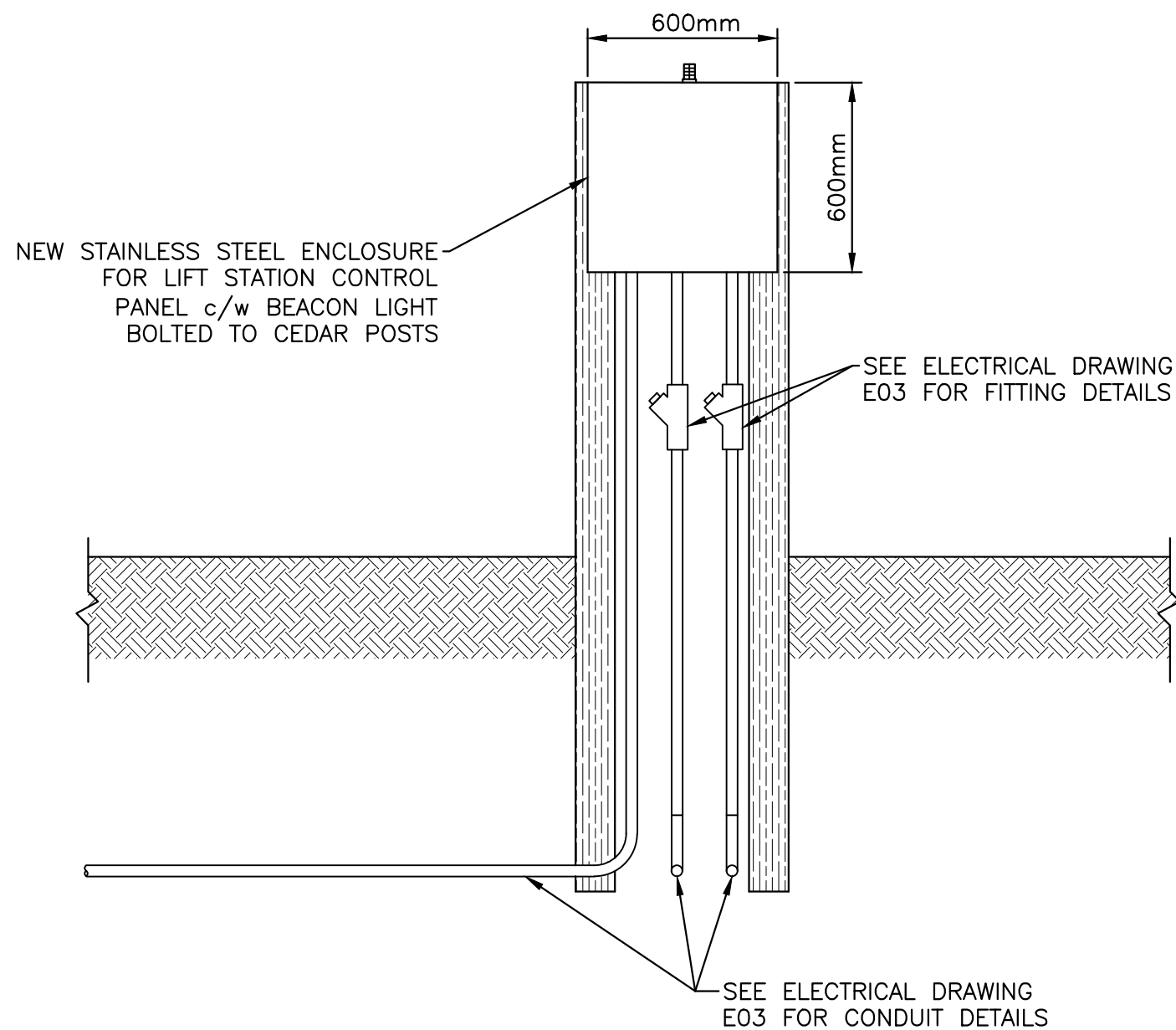
SCALE : 1:10



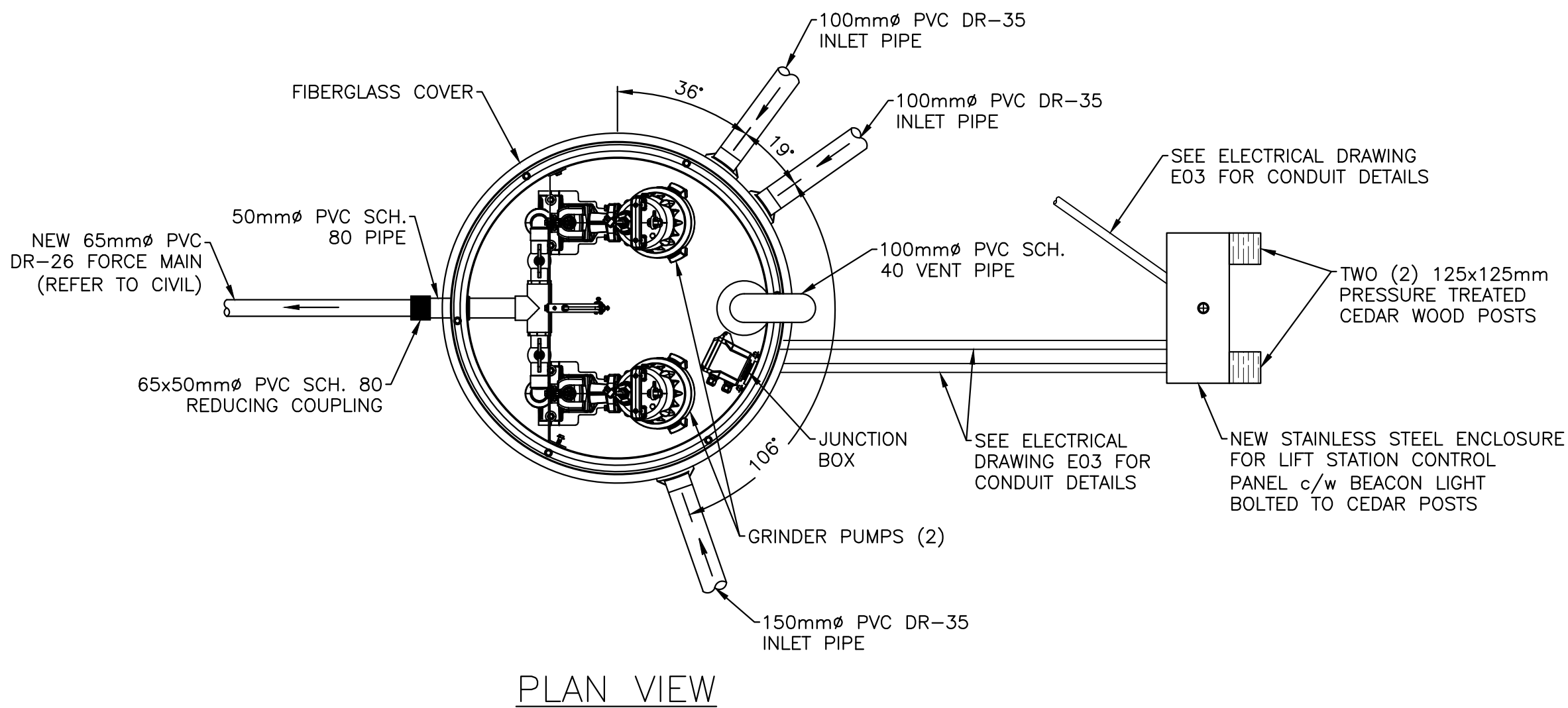
TOP VIEW



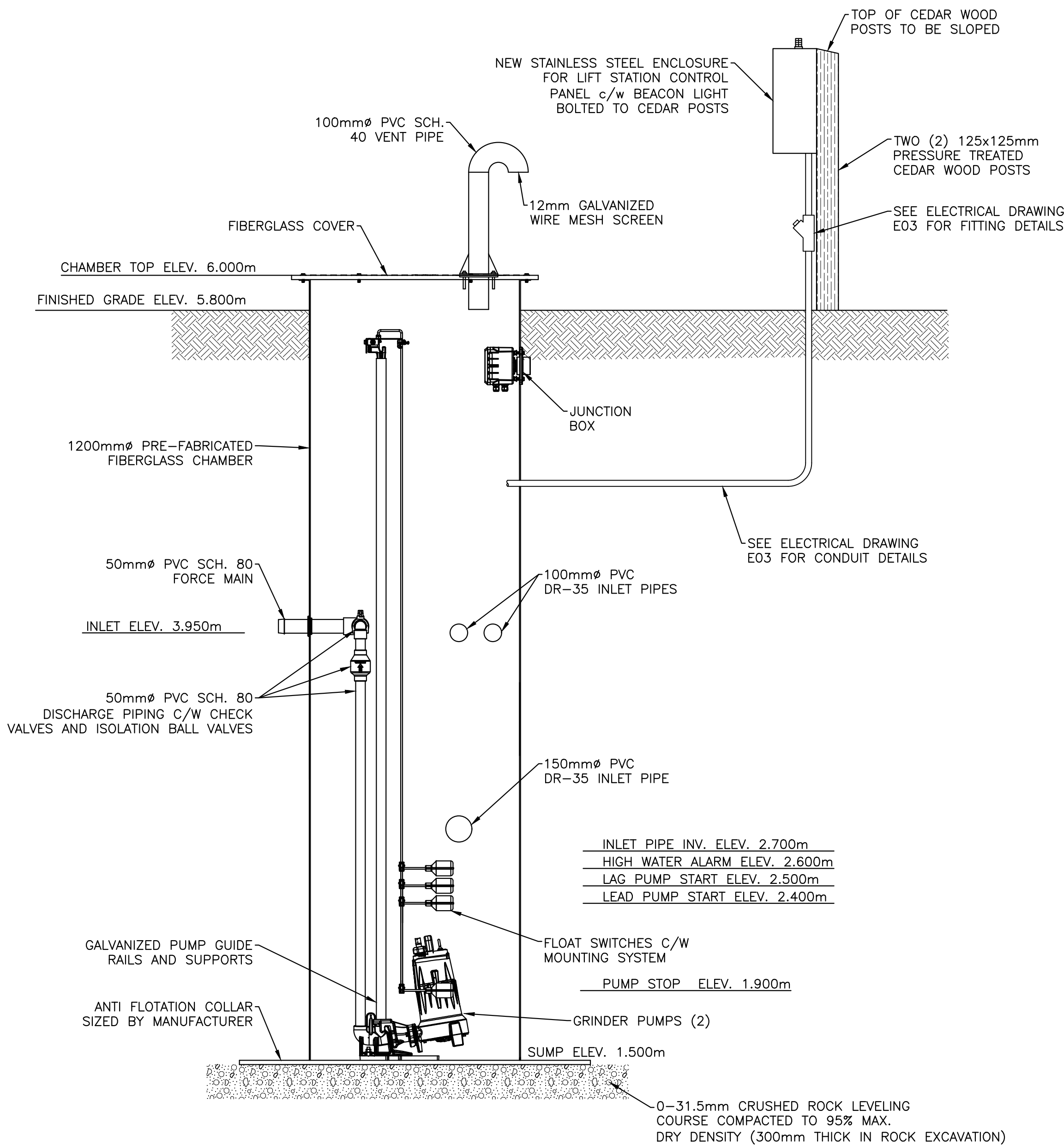




POST/CONTROL PANEL DETAIL  
SCALE : N.T.S.



PLAN VIEW



DETAIL - LIFT STATION

SCALE : 1:20  
0mm 200 400 600 800 1000 1200 1400 1600 1800 2000mm

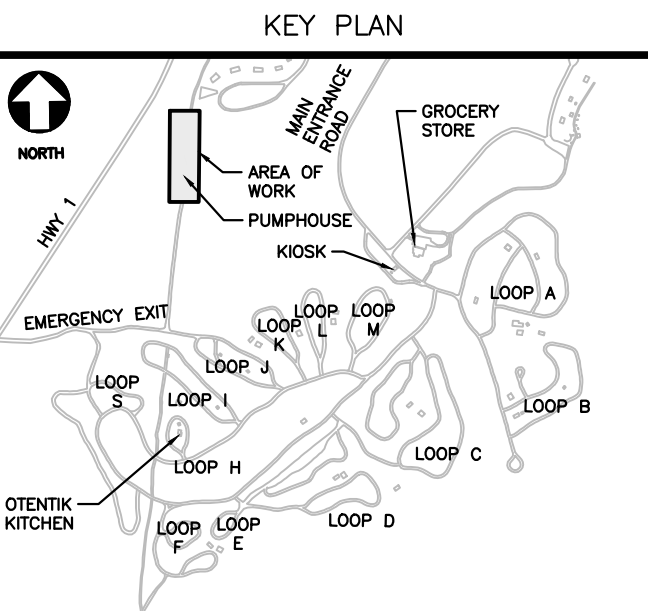
0.0	ISSUED FOR TENDER	05/31 2021
revisions		date

project	TERRA NOVA NATIONAL PARK UTILITY SYSTEMS RECAPITALIZATION PHASE 3	projet
---------	---	--------

drawing	TERRA NOVA NATIONAL PARK	dessin
---------	--------------------------	--------

designed	S. SAVOIE	conçu
date	2021-02-26	
drawn	S. LEBLANC	dessiné
date	2021-02-26	
approved	A. MELANSON	approuvé
date	2021-02-26	
Tender		Soumission
PCA Project Manager	Administrateur de projets APC	
project number	1716	no. du projet
drawing no.	M01	no. du dessin



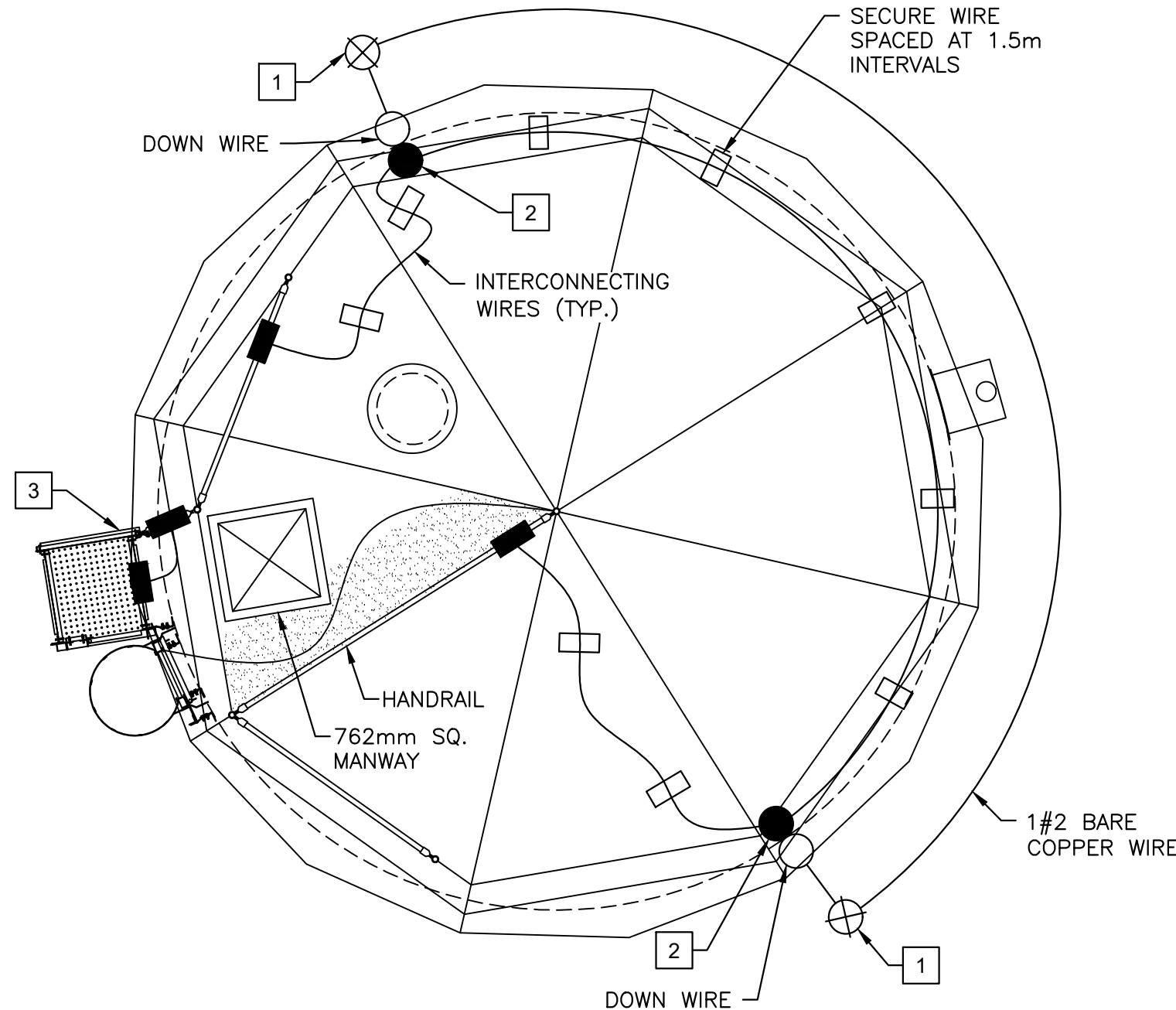


0.0	ISSUED FOR TENDER	05/31/2021
revisions		date

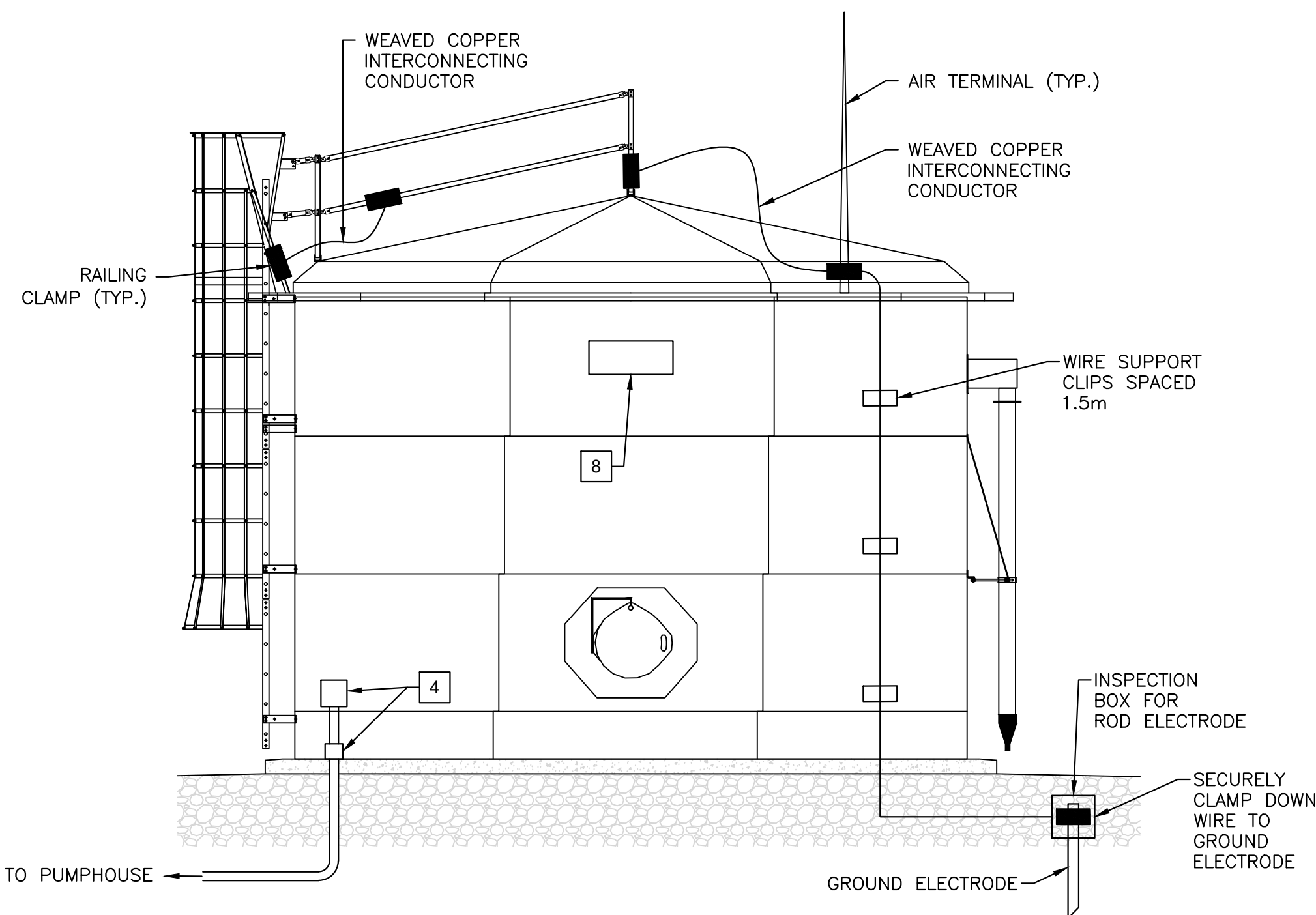
project	TERRA NOVA NATIONAL PARK UTILITY SYSTEMS RECAPITALIZATION PHASE 3	projct
drawing	TERRA NOVA NATIONAL PARK	dessin

## ELECTRICAL FOR NEWMAN SOUND WATER RESERVOIR

designed	F. ST-ONGE	conçu
date	2019-05-03	
drawn	K. LOUGHERY	dessiné
date	2019-05-03	
approved	D. DOW	approuvé
date	2019-05-24	
Tender		Soumission
PCA Project Manager	Administrateur de projets APC	
project number	1716	no. du projet
drawing no.	E01	no. du dessin



WATER RESERVOIR – ELEVATION

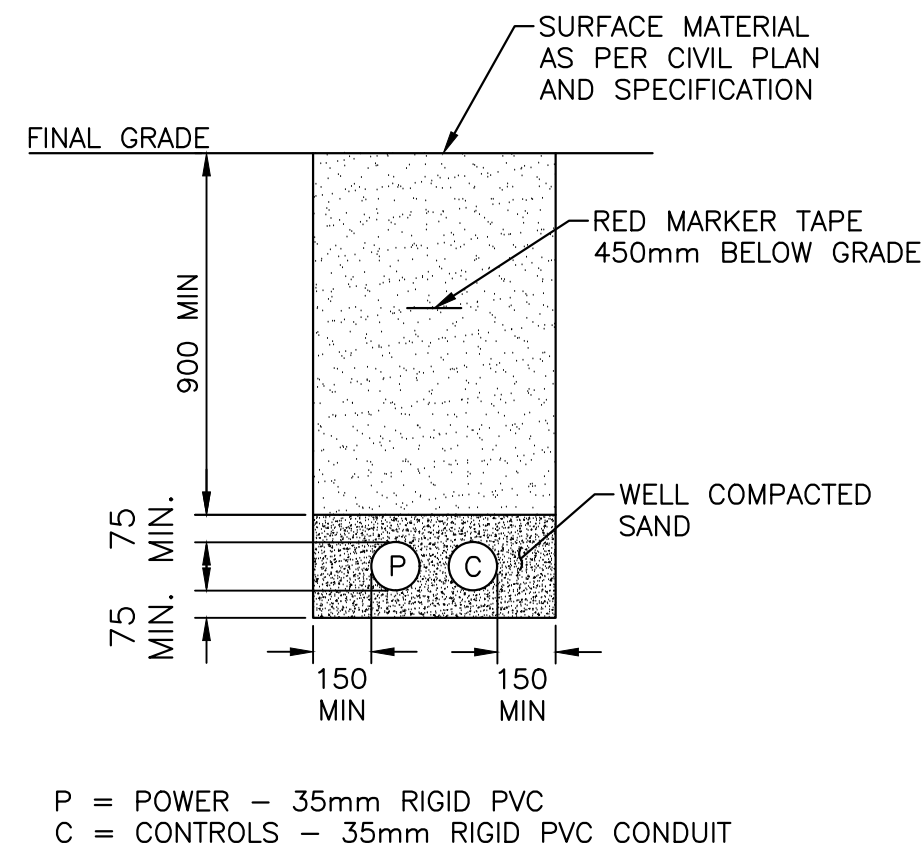


WATER RESERVOIR – ELEVATION

A  
E01

## WATER RESERVOIR LIGHTNING PROTECTION

SCALE : N.T.S.



B  
E01

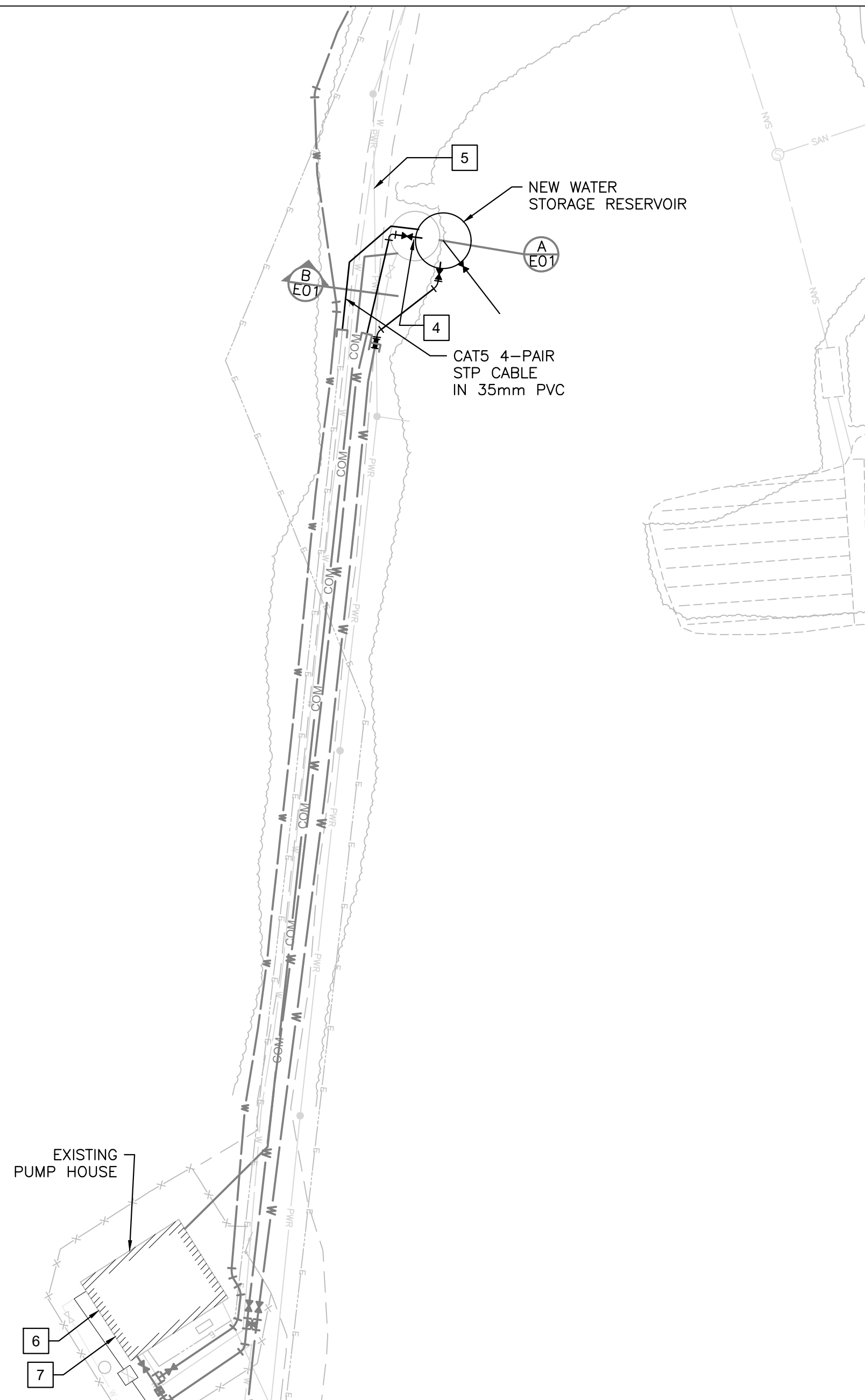
## ELECTRICAL CONDUIT INSTALLATION DETAIL

SCALE : N.T.S.

### KEYNOTES:

#### NEW INSTALLATION:

- 1 LOCATE GROUNDING ELECTRODES AT LEAST 1m AWAY FROM STRUCTURE FOOTING.
- 2 AIR TERMINALS MUST EXTEND A MINIMUM OF 50mm BEYOND THE HIGHEST POINT OF THE STRUCTURE.
- 3 GROUND SAFETY RAILING, PLATFORM, AND LADDER TO LIGHTNING PROTECTION SYSTEM.
- 4 TERMINATE CONDUIT AT WATER RESERVOIR WITH WEATHER PROOF PVC BOX. PROVIDE EXPANSION JOINT BELOW BOX. LEAVE MINIMUM 1m OF SLACK SHIELDED TWISTED PAIR CABLE, NEATLY COILED INSIDE BOX.
- 5 COORDINATE WITH NEWFOUNDLAND POWER TO PROVIDE POWER LINE COVER UPS DURING CONSTRUCTION OF WATER RESERVOIR. OBTAIN PROPER PERMITS FOR CONDUCTING WORK NEAR POWER LINES.
- 6 PROVIDE AND INSTALL ONE (1) 15A/1P BREAKER IN EXISTING 120/208V PANEL FOR THE NEW LEVEL SENSOR EQUIPMENT. COORDINATE WITH MECHANICAL. PROVIDE AND INSTALL 2#12 AWG RW90 IN 21mm EMT FROM PANEL TO LEVEL SENSOR CONTROLLER. PROVIDE AND INSTALL 2#14 AWG RWU90 SHIELDED FROM LEVEL SENSOR CONTROL TO TANK FLOAT.
- 7 PROVIDE AND INSTALL ONE (1) 15A/1P BREAKER IN EXISTING 120/208V PANEL FOR TANK LIGHT. PROVIDE AND INSTALL 2#12 AWG RWU90 IN 35mm RIGID PVC FROM PANEL TO TANK LIGHT. PROVIDE POST MOUNTED NEMA 4X SWITCH ADJACENT THE TANK.
- 8 PROVIDE AND INSTALL ONE (1) EXTERIOR WALL PACK LED LUMINAIRE ABOVE THE DOOR (LITHONIA #WST-LED-P2-27K-VW-120-PE-DBLXD WITH INTEGRAL PHOTO SENSOR.)



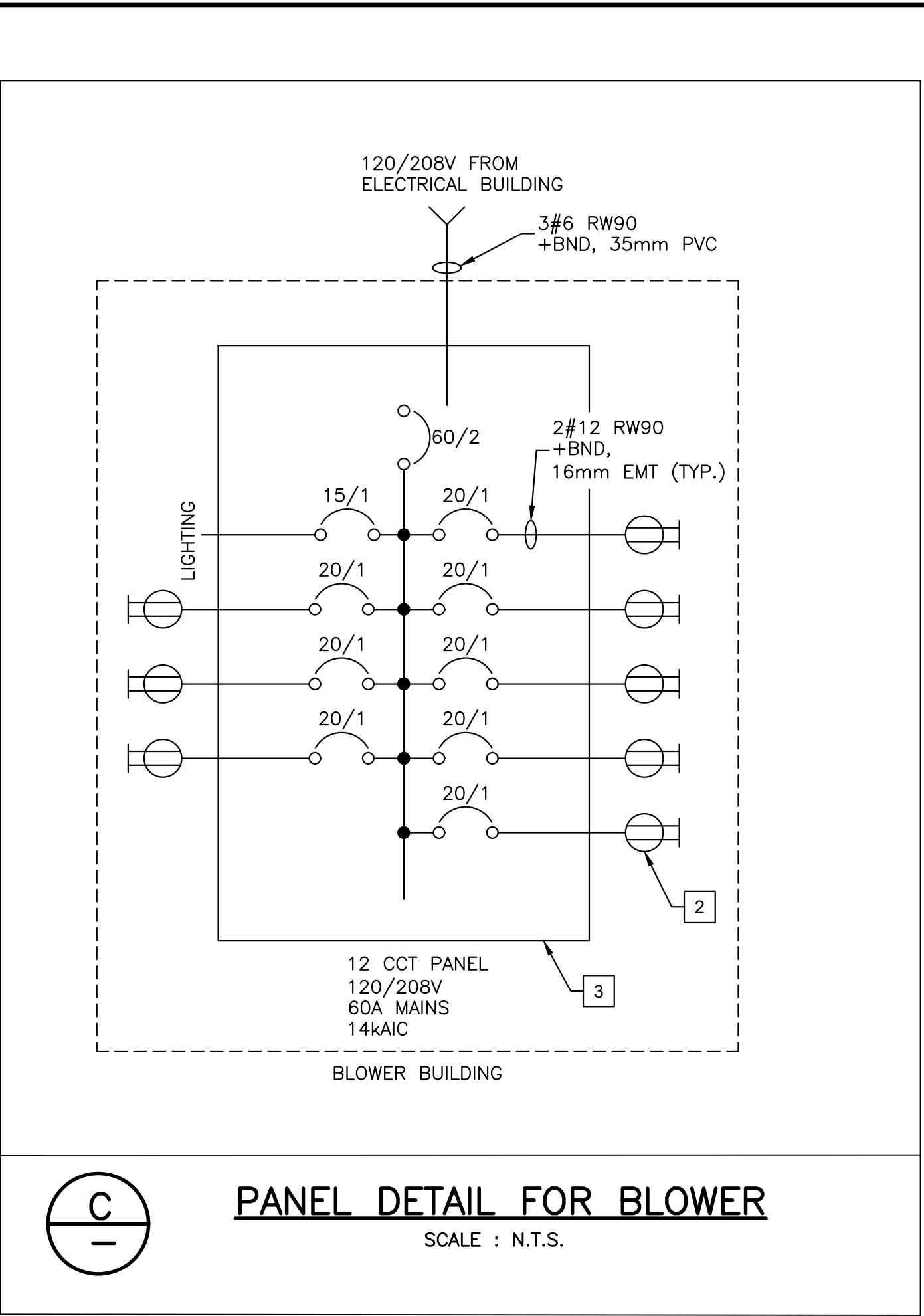
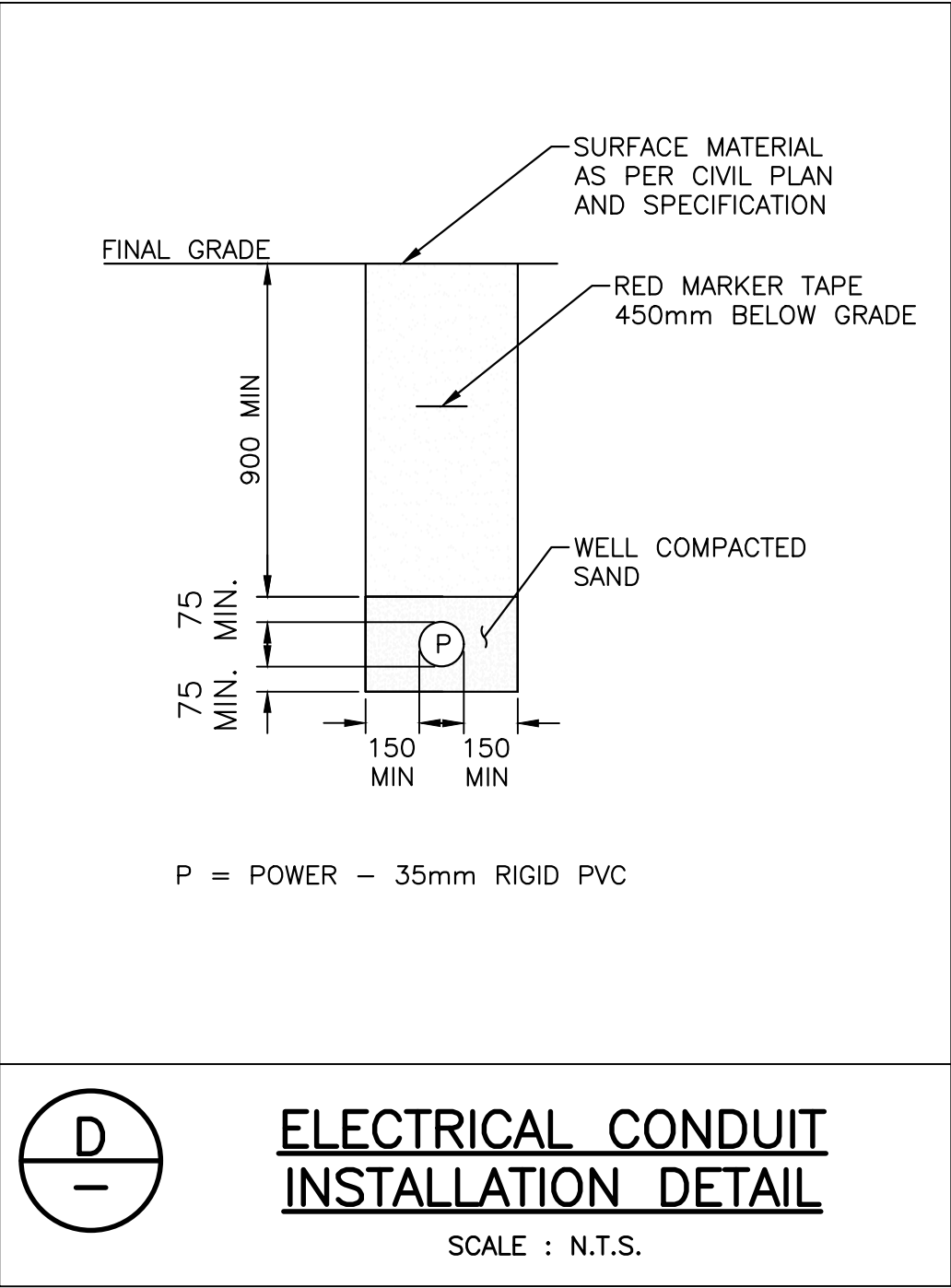
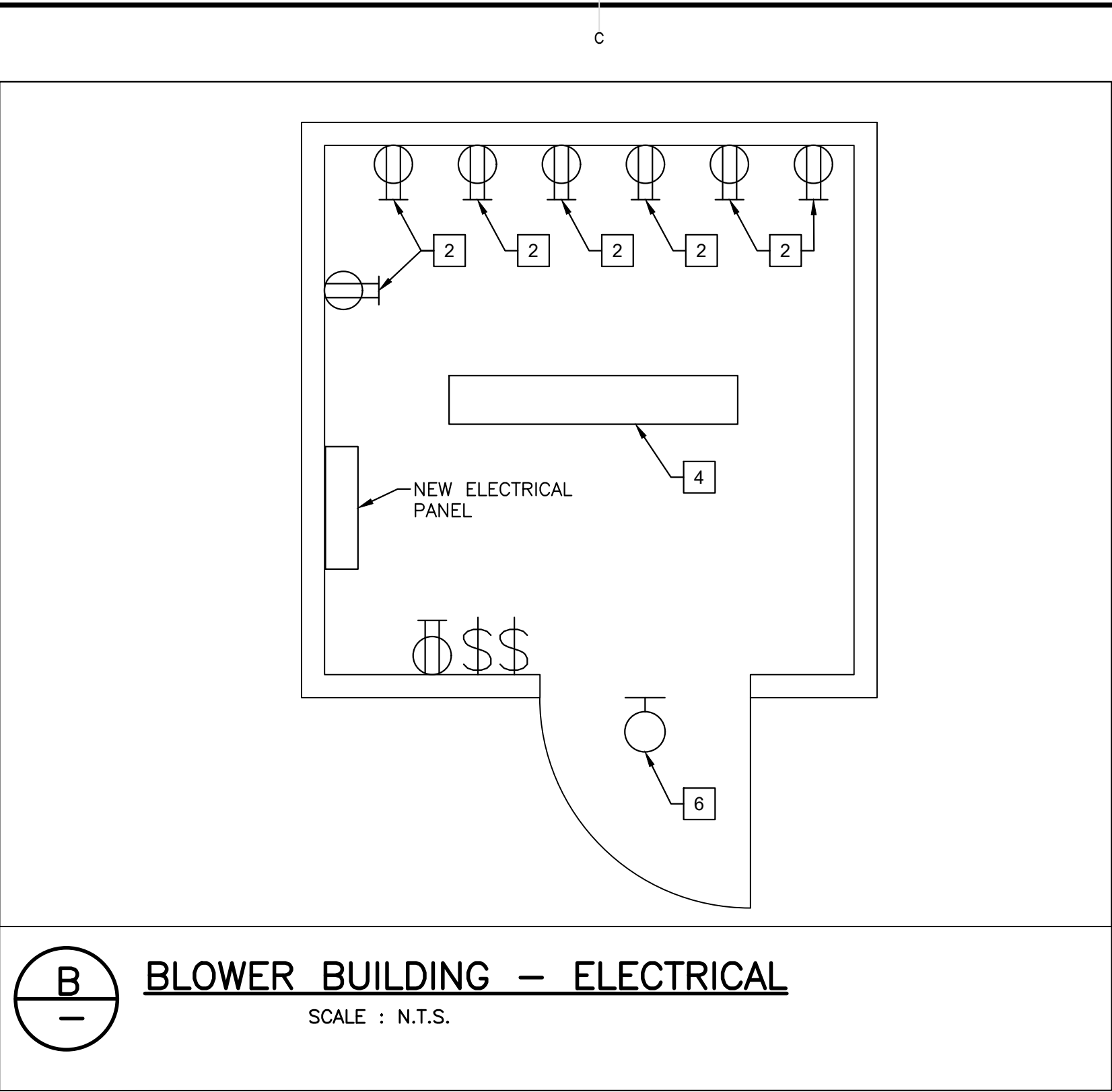
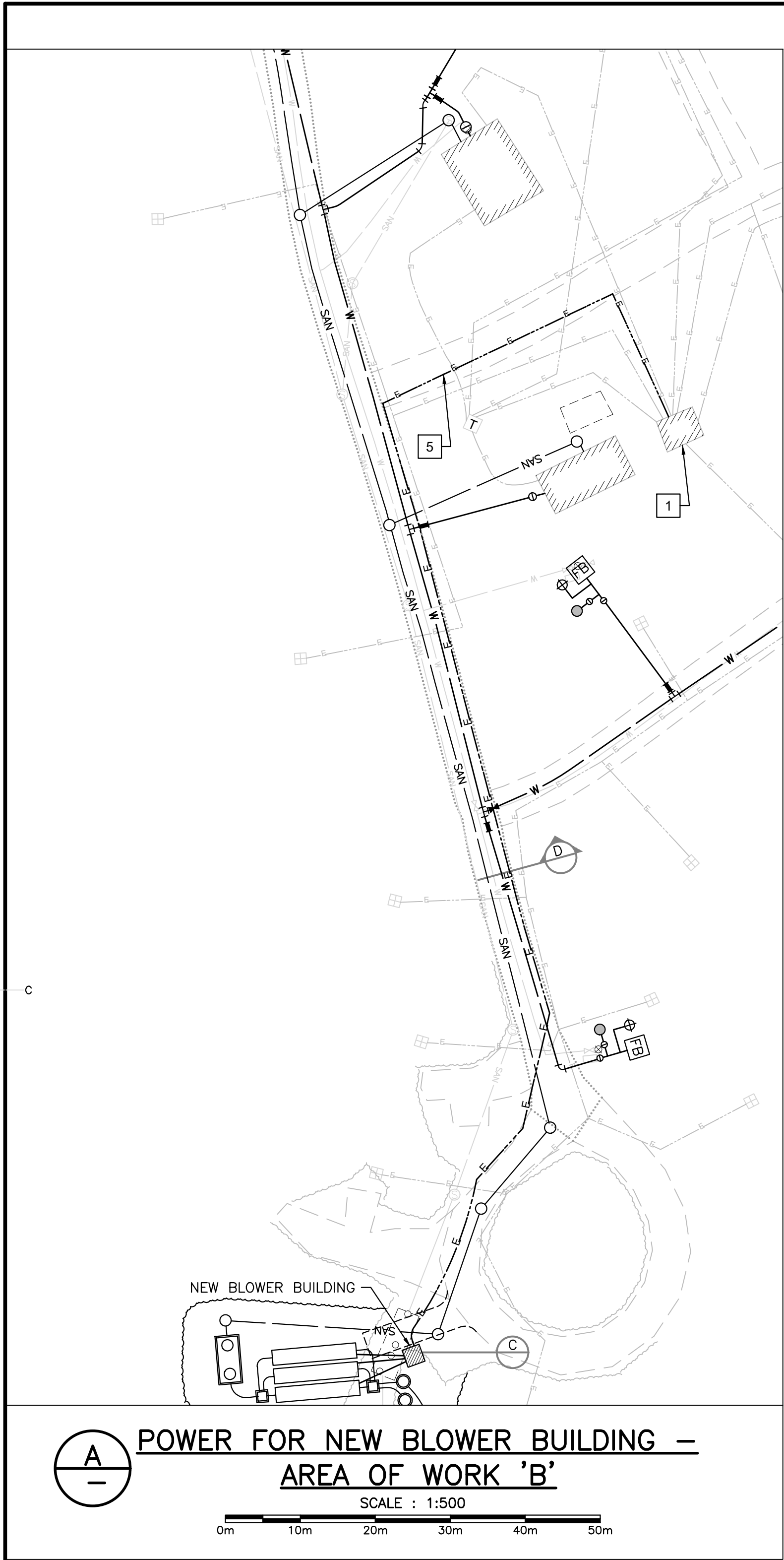
## ELECTRICAL FOR WATER RESERVOIR – AREA OF WORK

SCALE : 1:500  
0m 10m 20m 30m 40m 50m

### GENERAL NOTES:

1. COORDINATE EXACT ROUTING OF ALL UNDERGROUND SERVICES AND EQUIPMENT LOCATIONS WITH DEPARTMENTAL REPRESENTATIVE PRIOR TO INSTALLATION.
2. MINIMIZE WIDTH OF CLEARING WHEN PROVIDING CORRIDOR FOR TRENCHING. MAXIMUM CORRIDOR WIDTH SHALL BE 3m.
3. ADJUST PATH OR LOCATION OF NEW INFRASTRUCTURE IN THE FIELD TO AVOID IMPACT TO TREES. ANY TREE CLEARING SHALL BE REVIEWED AND APPROVED BY DEPARTMENTAL REPRESENTATIVE.
4. LIGHTNING PROTECTION SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH CAN/CSA-B72 BY A CERTIFIED INSTALLER.
5. COORDINATE WITH NEWFOUNDLAND POWER TO PROVIDE POWER LINE COVER UPS DURING CONSTRUCTION OF WATER RESERVOIR. OBTAIN PROPER PERMITS FOR CONDUCTING WORK NEAR POWER LINES.





**GENERAL NOTES:**

- COORDINATE EXACT ROUTING OF ALL UNDERGROUND SERVICES AND EQUIPMENT LOCATIONS WITH DEPARTMENTAL REPRESENTATIVE PRIOR TO INSTALLATION.
- MINIMIZE WIDTH OF CLEARING WHEN PROVIDING CORRIDOR FOR TRENCHING. MAXIMUM CORRIDOR WIDTH SHALL BE 3m.
- ADJUST PATH OR LOCATION OF NEW INFRASTRUCTURE IN THE FIELD TO AVOID IMPACT TO TREES. ANY TREE CLEARING SHALL BE REVIEWED AND APPROVED BY DEPARTMENTAL REPRESENTATIVE.

**KEYNOTES:**

- PROVIDE AND INSTALL ONE (1) 60A/2P BREAKER IN EXISTING 120/208V PANEL TO POWER SEPTIC BLOWER BUILDING.
- COORDINATE RECEPTACLE LOCATIONS WITH MECHANICAL.
- PROVIDE 12-CIRCUIT 60A, 120/240V PANEL c/w MAIN BREAKER IN NEW BLOWER BUILDING. PROVIDE TWO (2) 20A/1P SPARE BREAKERS IN ADDITION TO ONES SHOWN.
- PROVIDE AND INSTALL ONE (1) VAPOUR-TIGHT LOW PROFILE LED LUMINAIRE LITHONIA No.FEM L48 4000LM LPPFL WD MVOLT GZ10 35K 90CRI.
- INSTALL 3#6 AWG RWU90 IN NEW 35mm RIGID PVC CONDUIT FROM ELECTRICAL BUILDING TO NEW BLOWER BUILDING.
- PROVIDE AND INSTALL ONE (1) EXTERIOR WALL PACK LED LUMINAIRE ABOVE THE DOOR (LITHONIA #WST-LED-P2-27K-VW-120-PE-DBLXD WITH INTEGRAL PHOTO SENSOR).

**LEGEND:**

- 2x4 LUMINAIRE
- EXTERIOR LUMINAIRE
- RECEPTACLE
- SWITCH

Parks Canada

Englobe

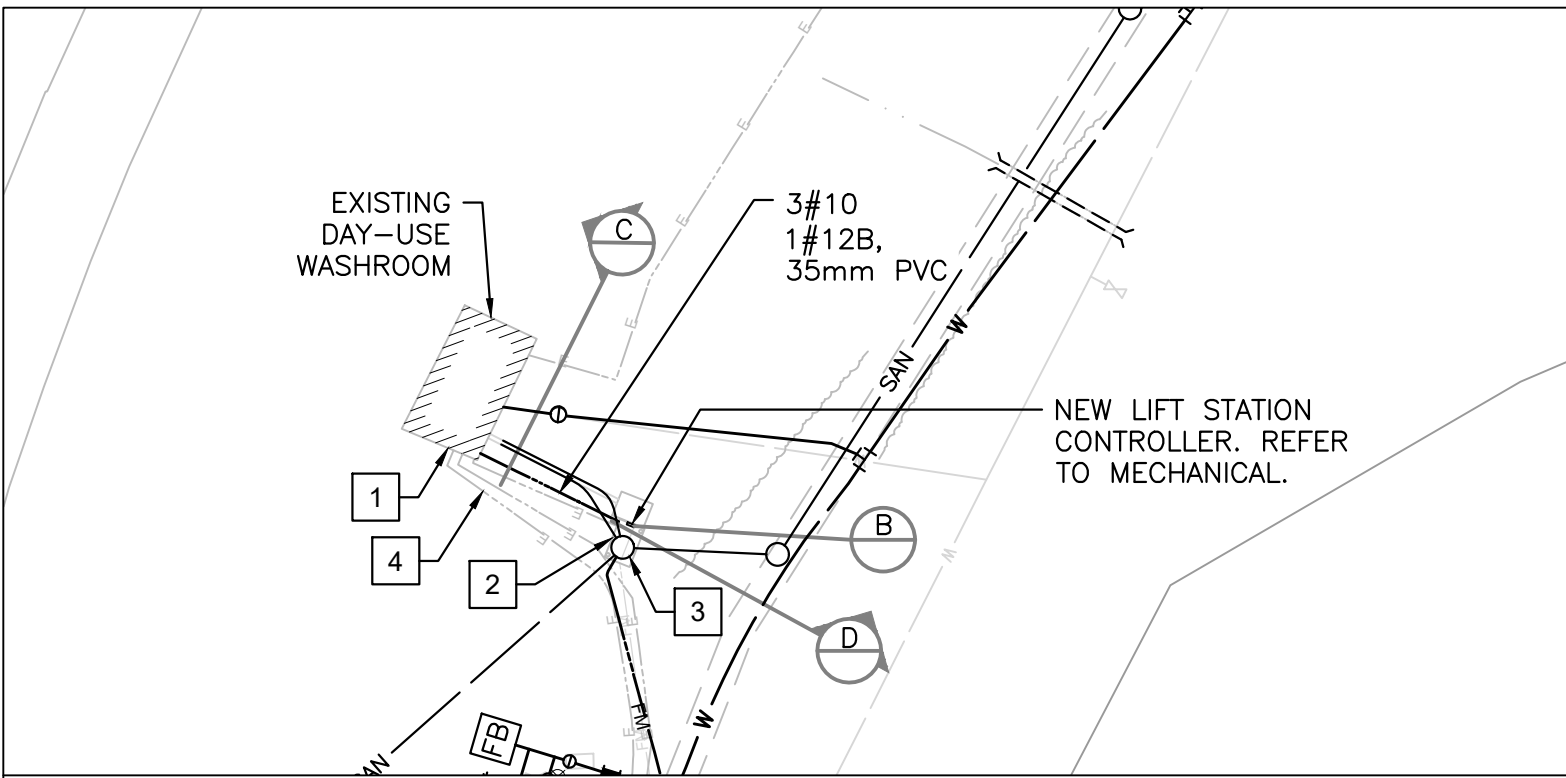
KEY PLAN

PROVINCE OF NEWFOUNDLAND AND LABRADOR  
ENGINEERING PERMIT T0282  
ENGLOBE CORP.  
9772  
Signature or Member Number (Member-in-Responsible Charge)

0.0 ISSUED FOR TENDER 05/31/2021

revisions		date
project	TERRA NOVA NATIONAL PARK UTILITY SYSTEMS RECAPITALIZATION PHASE 3	project
drawing	ELECTRICAL FOR NEWMAN SOUND BLOWER BUILDING	dessin
designed	F. ST-ONGE	conçu
date	2019-05-03	
drawn	K. LOUGHERY	dessiné
date	2019-05-03	
approved	D. DOW	approuvé
date	2019-05-24	
Tender		Soumission
PCA Project Manager	Administrateur de projets APC	
project number	1716	no. du projet
drawing no.	E02	no. du dessin





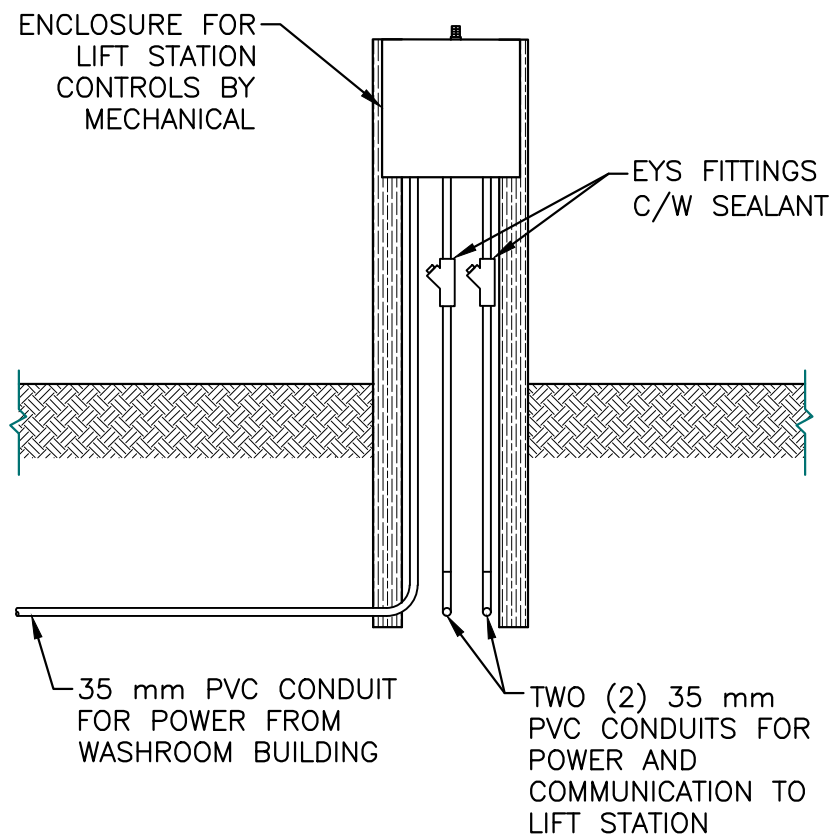
**A** ELECTRICAL FOR LIFT STATION –  
AREA OF WORK 'A'  
SCALE : 1:500

**GENERAL NOTES:**

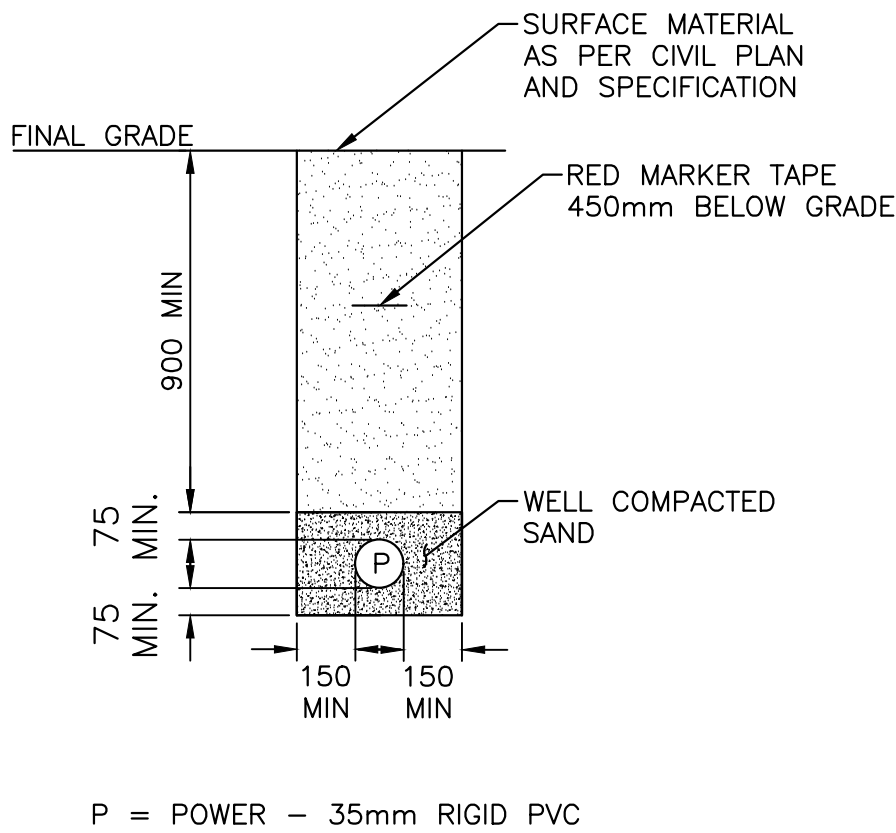
1. COORDINATE EXACT ROUTING OF ALL UNDERGROUND SERVICES AND EQUIPMENT LOCATIONS WITH DEPARTMENTAL REPRESENTATIVE PRIOR TO INSTALLATION.
2. MINIMIZE WIDTH OF CLEARING WHEN PROVIDING CORRIDOR FOR TRENCHING. MAXIMUM CORRIDOR WIDTH SHALL BE 3m.
3. ADJUST PATH OR LOCATION OF NEW INFRASTRUCTURE IN THE FIELD TO AVOID IMPACT TO TREES. ANY TREE CLEARING SHALL BE REVIEWED AND APPROVED BY DEPARTMENTAL REPRESENTATIVE.

**KEYNOTES:**

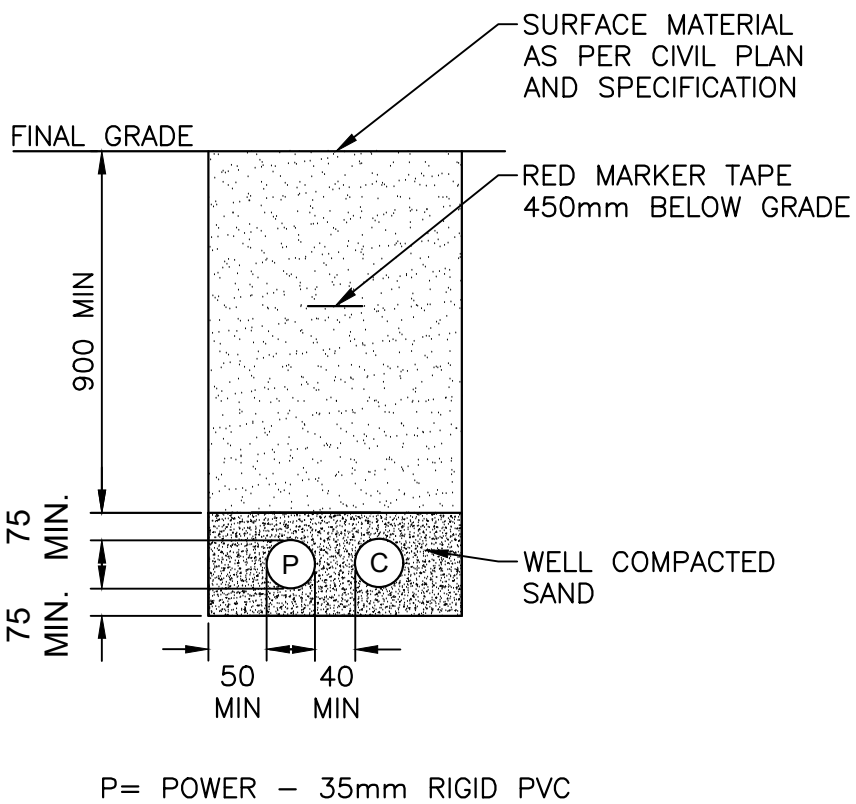
- 1 ADD ONE (1) 40A/3P BREAKER TO EXISTING PANEL "CDP" FOR NEW LIFT STATION. MAKE AND MODEL TO MATCH EXISTING. REMOVAL OF EXISTING LIFT STATION BREAKER IS REQUIRED TO MAKE SPACE.
- 2 REMOVAL OF ALL EXISTING LIFT STATION WIRING AND CONDUIT BY ELECTRICAL.
- 3 NEW PACKAGED LIFT STATION BY MECHANICAL. ALL NEW WIRING BY ELECTRICAL. COORDINATE WITH MECHANICAL.
- 4 INSTALL 3#8 AWG RWU90 IN NEW 35mm RIGID PVC CONDUIT.



**B** LIFT STATION CONTROL  
PANEL DETAIL  
SCALE : N.T.S.

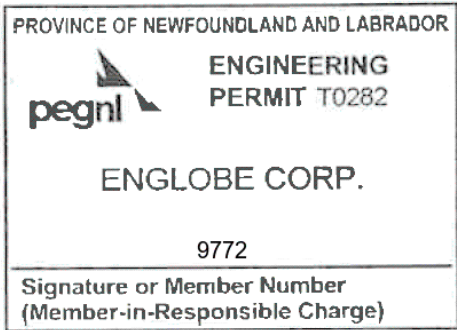
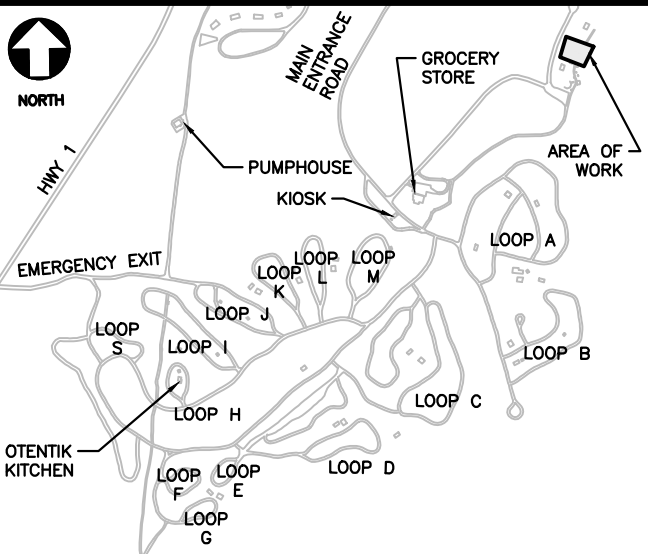


**C** ELECTRICAL CONDUIT  
INSTALLATION DETAIL  
SCALE : N.T.S.



**D** ELECTRICAL CONDUIT  
INSTALLATION DETAIL  
SCALE : N.T.S.

KEY PLAN



0.0	ISSUED FOR TENDER	05/31/2021
revisions		date

project TERRA NOVA NATIONAL PARK UTILITY SYSTEMS RECAPITALIZATION PHASE 3

TERRA NOVA NATIONAL PARK

ELECTRICAL FOR NEWMAN SOUND DAY-USE LIFT STATION

designed F. ST-ONGE conçu

date 2019-05-03

drawn K. LOUGHERY dessiné

date 2019-05-03

approved D. DOW approuvé

date 2019-05-24

Tender Soumission

PCA Project Manager Administrateur de projets APC

project number no. du projet

1716

drawing no. no. du dessin

E03